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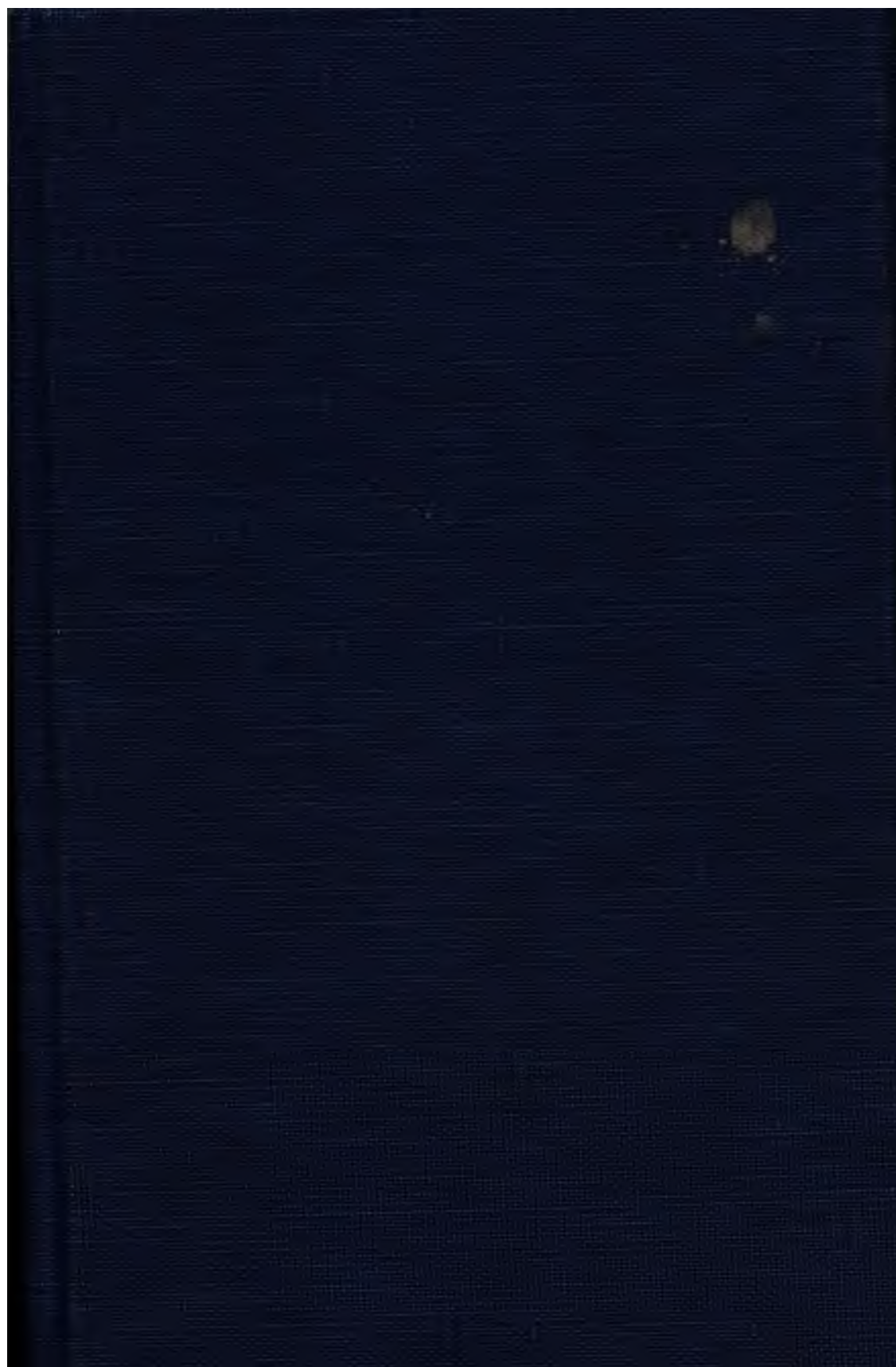
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**UNITED STATES TARIFF COMMISSION
WASHINGTON**

**THE FOREIGN TRADE
OF
JAPAN**

**A STUDY OF THE TRADE OF JAPAN
WITH SPECIAL REFERENCE TO THAT
WITH THE UNITED STATES**



**WASHINGTON
GOVERNMENT PRINTING OFFICE
1922**

UNITED STATES TARIFF COMMISSION
WASHINGTON

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WITH SPECIAL REFERENCE TO THAT
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INTRODUCTION.

The Tariff Commission published in 1918 a survey of the foreign trade of Japan. As a result of post-war readjustments, much of the material in that report is out of date, and it has therefore appeared desirable to issue another study of the prevailing conditions. In preparing it the former survey has been largely reorganized. Statistical information has been brought up to date, various tables have been reconstructed, others added, and a large amount of new material has been included in sections II, III, and IV.

The report is divided into four principal sections as follows:

I. Development of Japan's foreign trade prior to the war.

This section discusses Japan's commercial growth from 1856 to 1913. Particular attention is paid to the status of Japanese trade in the latter year because it was the last normal year before the war. The growth and distribution of the trade, by both commodities and countries, are also discussed.

II. Survey of the foreign trade of Japan since 1913.

This section contains a general survey of the trade since 1913, followed by a review of the commerce with the principal countries and a discussion of trade in the more important commodities. The outstanding changes in trade movements are brought out here while the details are considered in the following section.

III. Trade by groups of commodities.

An analysis of the Japanese foreign trade based on groups of commodities, as officially classified in the Japanese statistics, is found in this section, and a detailed study of the trade by groups and individual articles is made. Fluctuations in the exchange of various commodities during the war period, as indicated both by value and volume, are emphasized.

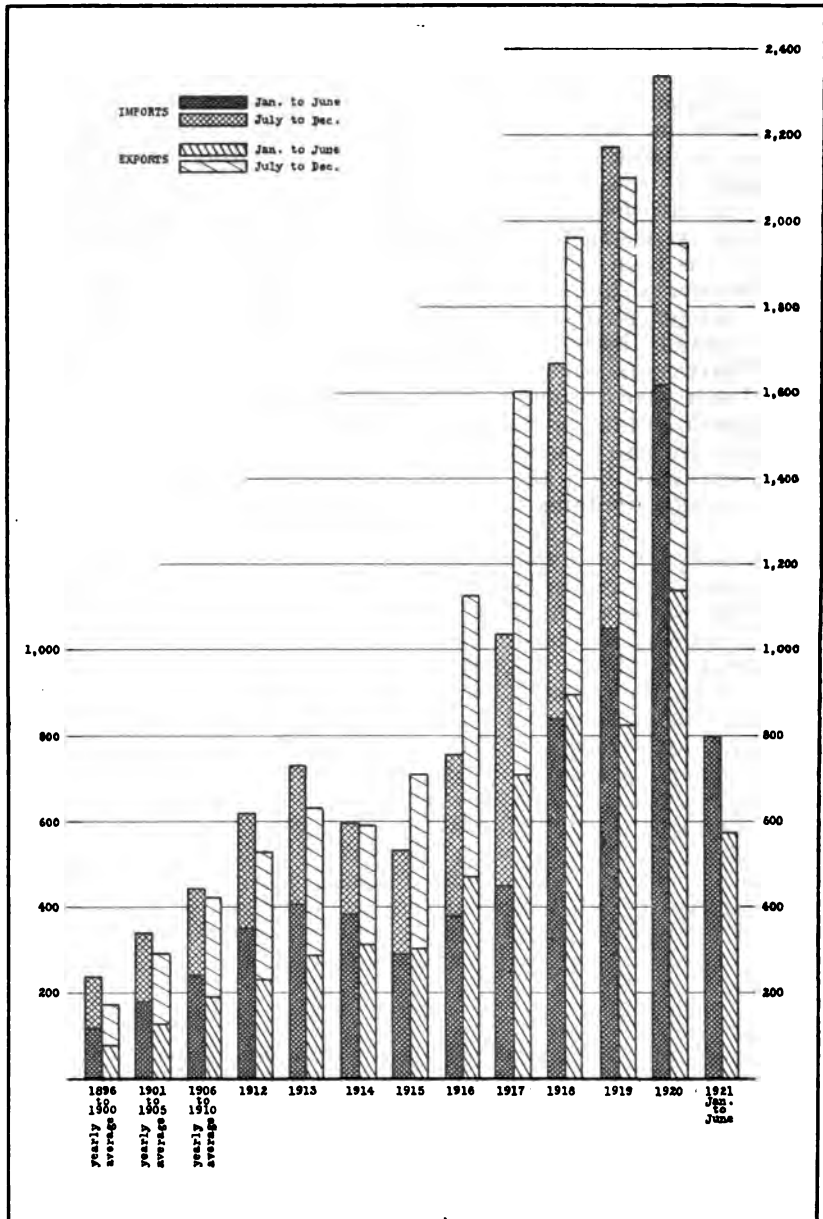
IV. Trade of the United States with Japan.

This section is a comprehensive study of the commerce between these two countries. It includes a comparison of the relative value of the trade of each, war and post-war changes, and a somewhat detailed analysis of the trade movements of the more important commodities and groups of commodities.

In the preparation of this report the Commission had the services of Dr. Blaine F. Moore and others of the Commission's staff.

CHART I.—The foreign trade of Japan.

[In millions of yen.]



THE FOREIGN TRADE OF JAPAN.

I.

DEVELOPMENT OF JAPAN'S FOREIGN TRADE PRIOR TO THE WAR.

To appreciate the phenomenal development of the foreign trade of Japan since the outbreak of the World War, it is necessary to give some attention to its earlier history. Six decades will account for the whole course of modern Japanese foreign trade. The quarter of a century since 1897 comprises the years of chief interest.

The first of Japan's commercial treaties were concluded in the years 1856-1858. In the treaties of 1858 the rates of import and export duties were fixed by agreement, and a few important ports were opened to foreign commerce. The total trade during the next ten years was of insignificant proportions. In 1866 the conventional tariffs were revised; the rates of duty then fixed, amounting in general to 5 per cent ad valorem, remained in force thereafter for more than thirty years. Following the Restoration, in 1867, the people and the Government of Japan began to turn their attention to commercial and industrial development. The opening of the Suez Canal and the building of railways across the United States, together with other improvements in the means of communication, afforded facilities which led promptly to an expansion of the trade between Japan and western countries.

Beginning with 1868, Japanese official trade returns are available. They improve in accuracy and detail in later years, and they are on the whole the most satisfactory of the figures available for a study of Japan's foreign trade.

The trend of Japan's import and export trade from 1868 to 1921 is shown in the following table:

Imports and exports, 1868-1921.¹

[Values in thousands of yen.]

Year.	Total trade.	Total imports.	Total exports.	Excess of imports.	Excess of exports.
1868.....	26,247	10,693	15,554	.....	4,861
1869.....	33,693	20,784	12,909	7,875	.....
1870.....	48,285	33,742	14,543	19,199	.....
1871.....	39,885	21,917	17,968	3,949	.....
1872.....	43,201	26,175	17,026	9,149	.....
1873.....	49,743	28,107	21,636	6,471	.....
1874.....	42,779	23,462	19,317	4,145	.....
1875.....	48,587	29,976	18,611	11,365	.....
1876.....	51,676	23,965	27,711	.....	3,746
1877.....	50,769	27,421	23,348	4,073	.....
1878.....	58,863	32,875	25,988	6,887	.....
1879.....	61,129	32,953	28,176	4,777	.....
1880.....	65,022	36,627	28,395	8,232	.....

¹ Figures from Japanese Department of Finance, Annual Returns of the Foreign Trade of the Empire of Japan. On the value of the yen, see page 3.

Imports and exports, 1868-1921—Continued.

[Values in thousands of yen.]

Year.	Total trade.	Total imports.	Total exports.	Excess of imports.	Excess of exports.
1881.....	62,250	31,191	31,059	132	.....
1882.....	67,168	29,447	37,721	.....	8,274
1883.....	64,713	28,445	36,268	.....	7,823
1884.....	63,544	29,673	33,871	.....	4,198
1885.....	66,504	29,357	37,147	.....	7,790
1886.....	81,045	32,168	48,877	.....	16,709
1887.....	96,712	44,304	52,408	.....	8,104
1888.....	131,161	65,455	65,706	.....	251
1889.....	136,164	66,104	70,060	.....	3,956
1890.....	138,332	81,729	56,603	25,126	.....
1891.....	142,455	62,927	79,528	.....	16,601
1892.....	162,429	71,326	91,103	.....	19,777
1893.....	177,970	88,257	89,713	.....	1,456
1894.....	230,728	117,482	113,246	4,236	.....
1895.....	265,373	129,261	136,112	.....	6,861
1896.....	289,517	171,674	117,843	53,831	.....
1897.....	382,436	219,301	163,135	56,166	.....
1898.....	443,256	277,502	165,754	111,748	.....
1899.....	435,332	220,402	214,930	5,472	.....
1900.....	491,692	287,262	204,430	82,832	.....
1901.....	508,166	255,817	252,349	3,468	.....
1902.....	530,034	271,731	258,303	13,428	.....
1903.....	606,638	317,136	289,502	27,634	.....
1904.....	690,622	371,361	319,261	52,100	.....
1905.....	810,072	488,538	321,534	167,004	.....
1906.....	842,539	418,784	423,755	.....	4,971
1907.....	926,880	494,467	432,413	62,054	.....
1908.....	814,503	436,257	378,246	58,011	.....
1909.....	807,311	394,199	413,112	.....	18,913
1910 ¹	922,663	464,234	458,429	5,805	.....
1911.....	961,240	513,806	447,434	66,372	.....
1912.....	1,145,974	618,982	526,992	92,010	.....
1913.....	1,361,822	729,432	632,460	96,972	.....
1914.....	1,136,837	586,736	550,101	4,636	.....
1915.....	1,240,757	532,450	708,307	.....	175,857
1916.....	1,363,896	756,428	1,127,468	.....	371,040
1917.....	2,688,816	1,035,811	1,653,005	.....	567,194
1918.....	3,630,245	1,668,144	1,962,101	.....	296,957
1919.....	4,272,333	2,173,460	2,098,873	74,587	.....
1920.....	4,284,570	2,336,175	1,948,395	387,780	.....
1921 (January-June).....	1,372,742	798,889	573,853	225,036	.....

¹ Since Sept. 1, 1910, Japan's trade with Korea has been excluded from the Japanese foreign trade returns; in 1909, 6.5 per cent of Japan's exports were sent to Korea, and 3.5 per cent of its imports were from Korea.

In the interval between 1869 and 1890 Japan reorganized its administrative system; a constitutional government was established on a firm basis, and both the Government and the people found it possible to devote themselves increasingly to the promotion of productive industry. This of course had its effect upon foreign trade. On the side of export trade the steady depreciation of silver in those years was indirectly an important factor in bringing about the increase.

WAR WITH CHINA—1894.

The war with China, 1894-1895, interrupted the growing trade but little. After the war industrial enterprises of many types developed and expanded; the importation of machinery and raw materials of various descriptions for industrial purposes suddenly increased, and there followed a ten-year period during which the annual imports continuously exceeded the exports. From 1896 to 1914 there were but two years—1906 and 1909—in which the exports exceeded the imports, and in these two years the excess of exports was small.

GOLD STANDARD, TARIFF, AND TREATIES, 1897-1899.

In 1897 Japan adopted the gold mono-metallic system, and in 1921 this was extended to Korea. In 1897 Japan also enacted a statutory tariff and abolished export duties. Between 1894 and 1899 the commercial treaty revision, which had been the subject of negotiations for twenty years, was effected, and in 1899 the old treaties were terminated and the new treaties went into effect. Under the new treaties Japan was no longer restricted in the making of its tariff. However, in four of the treaties rates of duty were "fixed" in respect to certain commodities, and these rates became generally applicable through the operation of the most-favored-nation clause.

VALUE, WEIGHTS, AND MEASURES.

When the gold standard was adopted in 1897 the gold value of the yen became fixed. From then until the present its value has been, in terms of United States currency, \$0.498. For purposes of approximate conversion, it is convenient to consider \$1 as equal to 2 yen, but the more accurate figures have been used in the conversions in this report.

The figures used in this survey are chiefly those given in official Japanese publications.¹ The values quoted are in most cases in yen. It is convenient for the purposes of this report to use the Japanese official figures; although these do not always agree with the corresponding import and export figures of other countries, they are the most satisfactory for a statistical study of Japan's trade. The only land measurements used in this report, those which appear in connection with the production of certain foodstuffs, are given in acres. The Japanese unit for areas under cultivation is the "cho," which is equal to 2.45064 acres. Certain quantity measures, especially for foodstuffs, are given in the Japanese trade returns in "koku," one koku (dry) being equivalent to 5.11902 bushels (United States). Weights are quoted in various tables in piculs, kwan, kin, or momme, the equivalents of which in United States standards are as follows:

- 1 picul equal 132.277 pounds.
- 1 kwan equals 8.267 pounds.
- 1 kin equals 1.32277 pounds.
- 1 momme equals 0.13228 ounce (Avoir.).

FOREIGN TRADE SINCE THE ADOPTION OF THE GOLD STANDARD (1897).

The total trade of Japan for the years since the gold standard was adopted is compared with the total trade of the United States in the following table:

¹ Especially the Annual Return of the Foreign Trade of the Empire of Japan, by the Department of Finance; the Financial and Economic Annual; and the Statistical Reports of the Department of Agriculture and Commerce.

Total foreign trade of Japan and of the United States, 1897-1921.¹

[In thousands.]

Year.	Japan.		United States.	Per cent increase or decrease (—) over preceding year.	
	Yen.	Equivalent in dollars.	Dollars.	Japan.	United States.
1897.....	382,436	190,453	1,815,724	.....	.....
1898.....	443,256	220,741	1,847,582	15.90	1.75
1899.....	435,332	216,795	1,924,172	— 1.79	4.15
1900.....	491,692	244,983	2,244,424	12.95	16.64
1901.....	508,166	253,067	2,310,937	3.35	2.96
1902.....	530,034	263,957	2,285,040	4.30	— 1.12
1903.....	606,638	302,106	2,445,861	14.45	7.04
1904.....	690,622	343,930	2,451,915	13.84	.25
1905.....	810,072	403,416	2,636,075	17.30	7.51
1906.....	842,539	419,584	2,970,427	4.01	12.68
1907.....	926,880	461,586	3,315,273	10.01	11.61
1908.....	814,503	405,622	3,055,115	—12.12	— 7.85
1909.....	807,311	402,041	2,974,931	— .88	— 2.63
1910.....	922,663	459,486	3,301,932	14.29	10.99
1911.....	961,240	478,698	3,576,546	4.18	8.32
1912.....	1,145,974	570,695	3,857,587	19.22	7.86
1913.....	1,361,892	678,222	4,278,892	18.84	10.92
1914.....	1,186,837	591,045	4,258,505	—12.85	— .48
1915.....	1,240,757	617,397	4,442,759	4.54	4.33
1916.....	1,883,896	938,180	6,531,366	51.83	47.01
1917.....	2,638,816	1,314,130	8,949,404	40.07	37.02
1918.....	3,630,245	1,807,862	9,180,300	37.57	2.58
1919.....	4,272,333	2,127,622	11,824,791	17.69	28.80
1920.....	4,284,570	2,133,716	13,506,497	.29	14.23
1921 (January-June).....	1,372,742	683,626	3,784,075	.....	.....

¹ Calendar years for Japan: years ending June 30 for the United States 1897-1918, calendar years 1919 and 1920.

Small though it was relatively, Japan's foreign trade had made rapid advances in the decade preceding 1897. It amounted in 1897 to 382,400,000 yen, which was four times the figure of 1887 and more than twice that of 1893. This represented a per capita foreign trade of 8.85 yen. In the same year, 1897, the per capita foreign trade of the United States amounted to \$25.44, equivalent to 51.09 yen.

In 1899 the Japanese tariff law of 1897 went into effect. In anticipation of this there had been in the year 1898 unusually large importations; consequently, as compared with 1898, the trade of the year 1899 showed a decrease.

The Boxer troubles of 1900 in North China interfered slightly with the course of Japan's rapidly growing trade; the exports fell in 1900 by some 10,000,000 yen, but the imports had increased very rapidly, and the total trade showed a substantial increase.

WAR WITH RUSSIA, 1904.

The outbreak of hostilities between Japan and Russia in 1904 was followed by the requisitioning of many vessels, while land communications were occupied with the transportation of forces and munitions. The dangers of navigation brought on a heavy rise in freight and insurance rates and for a time caused great inconvenience to trade. After Japan gained the command of the sea, its trade steadily increased. The import trade in particular showed a remarkable expansion owing to the increased importation of munitions and

military supplies. Much merchandise was also imported in anticipation of higher customs duties occasioned by the necessities of war finance. In 1905 there was a great increase in the importation of raw materials and machinery to be used in the manufacture of munitions, and of various materials required for the repair and building of warships and other vessels. There was again hastening of importation in anticipation of further increases in customs duties. With the conclusion of the war there came naturally a sudden falling off in the imports of war supplies, but confidence in the economic future of the country occasioned the importation of raw materials for manufacturing purposes. The restoration of order in Asiatic Russia and in Manchuria, together with the fact that Japan had acquired a new interest in the latter, increased the trade of Japan with these regions. In 1906 the rise in the price of silver favored the sale of goods to silver-using countries, especially China. The export trade attained an unprecedented degree of prosperity, causing an increase in imports of raw materials from abroad for manufacturing purposes; moreover, in anticipation of the coming into operation of the new import tariff which took effect from October, 1906, there was a marked increase in the importation of certain other articles. But, on account of the falling off in the importation of war material and supplies, the total imports for 1906 showed a decrease by about 70,000,000 yen from the total of the preceding year. The total exports were in 1906, for the first time in ten years, in excess of the imports. As compared with the exports of 1903, the last year before the Russo-Japanese War, they showed an increase of 134,000,000 yen. The figures for the two years were: Imports, 1903, 317,000,000 yen; 1906, 418,700,000 yen. Exports, 1903, 289,500,000 yen; 1906, 423,700,000 yen.

In 1907 both the import and the export totals increased over the preceding year, the former by 75,680,000 yen, the latter by 8,660,000 yen. These occurred notwithstanding a fall in the price of copper—an important export—the depreciation in the value of silver, and the blow to the silk trade which was a consequence of the financial crisis in the United States. The gain in imports was largely in raw materials, ship-building materials, machines and machinery, foodstuffs and miscellaneous commodities for which the rise in the national standard of living created an enlarged demand.

The next seven years, 1908-1914, show at first a decline in the total foreign trade, followed by recovery and marked increases. After the annexation of Korea, and beginning with September, 1910, the trade between Japan and Korea was no longer entered in the figures of Japan's foreign trade. Also, in 1911, Japan's commercial treaties with foreign powers were again revised and a new tariff law went into effect.

YEARS IMMEDIATELY PRECEDING THE WORLD WAR.

The period 1911-1914 was the most prosperous that Japan's trade had known up to that time. In 1911 the imports made a complete recovery and showed a substantial increase over those of any previous year; the exports showed a slight decrease, as compared with the preceding year.

From then until the outbreak of the World War there was a steady increase in both imports and exports. For the three years, 1911, 1912, and 1913, the total trade was 3,469,100,000 yen; the imports, 1,862,200,000 yen; the exports, 1,606,700,000 yen; the excess of imports, 255,200,000 yen. The averages for the three years before 1914 were, therefore, as follows: Total trade, 1,156,300,000 yen; imports, 621,000,000 yen; exports, 535,600,000 yen; average excess of imports, 85,000,000 yen.

In the export trade the increased shipments of raw silk, habutae, silk handkerchiefs, and straw braids were due to a great extent to the favorable condition of the American trade. The increasing importance of the exports of cotton yarns, cotton fabrics, cotton manufactures, and refined sugar in the trade with China was in considerable measure a consequence of the rise in the value of silver and the restoration of comparative order after the Chinese revolution.

«The increase in the import trade was mainly accounted for by greater importations of raw materials for manufacturing, such as ginned cotton, wool, woolen yarns and vegetable fibers, iron and steel; also, of wheat, wheaten flour, chemical and mineral fertilizers, woolen textiles, kerosene, and rice. There was, however, a decrease in the value of the imports of manufactured articles. The gain in the imports of raw materials and the loss in those of manufactured articles were consequences of the development of Japanese textile manufactures, shipbuilding, and mechanical industries.» The greater demand for foreign provisions, chiefly rice and sugar, was partly the natural result of the growth of an industrial population and partly a consequence of the damage done by storms to the crops in Japan proper and Formosa.

THE TRADE IN GENERAL IN 1913.

The total trade of Japan in the year 1913 amounted to 1,361,892,000 yen. This represented a gain of 18.8 per cent over the trade of 1912. The imports amounted to 729,432,000 yen, an increase of 17.8 per cent; and the exports amounted to 632,460,000 yen, an increase of 20 per cent.

«On the side of imports, the development of the textile and metal industries accounted for the increase in animal and vegetable fibers, iron, and machinery; the failure of crops of rice and sugar occasioned an advance in these commodities; and the industrial progress and general development of the export trade led to the gain in certain other raw materials.

On the side of the export trade, the increase in the purchasing power of China, resulting from consecutive abundant harvests and a period of comparative order after the revolution, together with the successful flotation of foreign loans, the restoration of peace in Europe at the conclusion of the Balkan wars, and the greatly increased foreign demand for raw silk, account in considerable measure for the expansion.

The trade by regions and countries in 1913 was as follows:

Japan's foreign trade in 1913, by regions and countries of origin and destination.

[Values in thousands of yen.]

Region and country.	Imports.		Exports.		Total trade.	
	Value.	Per cent of total import trade.	Value.	Per cent of total export trade.	Value.	Per cent of total trade.
Asia:						
British India.....	173,174	23.74	29,873	4.72	203,047	14.91
China.....	61,223	8.39	154,661	24.45	215,884	15.86
Kwantung.....	30,878	4.28	29,886	4.72	60,714	4.46
Dutch East Indies.....	37,389	5.13	5,149	.81	42,538	3.12
French Indo-China.....	24,700	3.38	1,055	.17	25,755	1.89
Philippine Islands.....	7,648	1.05	6,284	.99	13,932	1.02
Straits Settlements.....	5,205	.71	10,142	1.60	15,347	1.13
Siam.....	5,793	.79	1,035	.16	6,828	.50
Asiatic Russia.....	750	.11	4,271	.68	5,021	.37
Hongkong.....	1,295	.18	33,622	5.32	34,917	2.56
Total Asia.....	348,055	47.71	275,928	43.62	623,983	45.82
Europe:						
Great Britain.....	122,737	16.83	32,870	5.20	155,607	11.43
France.....	5,829	.80	60,280	9.52	66,059	4.85
Belgium.....	9,448	1.29	3,706	.59	13,153	.97
Italy.....	1,078	.15	29,417	4.65	30,495	2.24
Russia.....	41	.01	4,897	.77	4,938	.36
Germany.....	68,395	9.38	13,132	2.08	81,527	5.99
Austria-Hungary.....	3,890	.53	938	.15	4,827	.35
Other European countries.....	8,872	1.22	2,035	.32	10,909	.80
Total Europe.....	220,290	30.21	147,225	23.28	367,515	26.99
America:						
United States.....	122,408	16.78	184,473	29.17	306,882	22.53
British America.....	1,539	.25	5,090	.80	6,630	.51
Other American countries.....	2,788	.38	2,198	.35	4,984	.37
Total America.....	127,035	17.41	191,761	30.32	318,796	23.41
Australia.....	14,943	2.05	8,638	1.37	23,581	1.73
Egypt.....	7,143	.98	1,371	.22	8,514	.62
Hawaii.....	91	.01	4,992	.79	5,083	.37
All other countries ¹	11,875	1.63	2,545	.40	14,420	1.06
Total trade.....	729,432	100.00	632,460	100.00	1,361,892	100.00

¹Includes goods received from temporary warehouses, merchandise whose origin and destination are unknown, and supplies sold to ships.

The figures in the foregoing table show that in the year preceding the war the preponderance of Japan's trade was with Asiatic countries; 47.71 per cent of the imports came from the regions in that part of the globe, while 43.62 per cent of the exports went to those regions. The trade with European countries accounted for 27 per cent of the total; that with North and South American countries amounted to 23.4 per cent, and almost the whole of the latter was with the United States.

The following table affords a basis for comparing Japan's total trade with Asia, Europe, and North and South America, respectively, in 1897, 1907, and 1913.

THE FOREIGN TRADE OF JAPAN.

Trade by regions, 1897, 1907, and 1913.

[Values in thousands of yen.]

Region.	1897		1907		1913	
	Value.	Per cent total Japanese trade.	Value.	Per cent total Japanese trade.	Value.	Per cent total Japanese trade.
Asia.....	154,766	40.22	391,862	42.28	623,983	45.82
Europe.....	136,715	35.53	289,580	31.24	367,516	26.98
North and South America.....	81,668	21.22	218,782	23.61	318,796	23.41

The following table affords a basis for comparing Japan's total trade with certain countries in 1897, 1907, and 1913:

Trade with certain countries, 1897, 1907, and 1913.

[Values in thousands of yen.]

Country.	1897	1907	1913	Country.	1897	1907	1913
United States.....	79,467	211,798	306,881	France.....	31,361	49,568	66,059
British India.....	35,339	87,681	203,047	Germany.....	20,350	58,924	81,527
China.....	50,591	144,801	215,883	Italy.....	3,195	14,712	30,495
Great Britain.....	73,887	138,688	155,607	Australia.....	2,772	12,613	23,581

Examination of the trade in 1913 with individual countries shows that the greatest trade, in value, was, as usual, that with the United States, the combined imports and exports in that trade amounting to 23 per cent of Japan's total foreign trade. The next largest trade was that with China, and this was closely followed by that with British India, each amounting to about 15 per cent of the total. In the character of the trade, however, there was a great difference. Japan's trade with British India consisted chiefly of imports, that with China chiefly of exports. From British India, Japan imports raw cotton; to China she sells cotton piece goods and other manufactures. The trade with Great Britain amounted to 11 per cent of the total; that with Germany, to 6 per cent; with France, to 5 per cent; with Italy, to 2 per cent. The trade with Great Britain and Germany consisted chiefly of imports; that with France and Italy of exports.

The total trade between Japan and the United States was almost twice as great as that between Japan and Great Britain; the Japanese exports to the United States were more than five times those to Great Britain. The United States sent to Japan goods to the value of 122,408,000 yen, and purchased from Japan goods to the value of 184,474,000 yen. Japan's exports to China, her second best customer, were less by 30,000,000 yen than those to the United States. The commodities imported by Japan from the United States were principally raw cotton, iron and steel, and machinery. Foremost among the purchases of the United States from Japan was raw silk.

The following table affords a basis for comparing Japan's total import trade by regions in 1897, 1907, and 1913:

Import trade by regions, 1897, 1907, 1913.

[Values in thousands of yen.]

Region.	1897	1907	1913
Asia.....	95,185	200,096	348,055
Europe.....	95,050	195,213	220,290
North and South America.....	27,160	82,758	127,035

The following table affords a basis for comparison of Japan's imports from specified countries in 1897, 1907, and 1913:

Imports from certain countries, 1897, 1907, 1913.

[Values in thousands of yen.]

Country.	1897	1907	1913	Country.	1897	1907	1913
United States.....	27,031	80,697	122,408	France.....	5,148	7,025	5,639
British India.....	29,776	74,593	173,174	Germany.....	18,143	47,668	68,895
China.....	29,266	59,182	61,223	Italy.....	213	943	1,078
Great Britain.....	65,406	116,245	122,737	Australia.....	897	7,819	14,943

The following table affords a basis for comparing Japan's exports by regions in 1897, 1907, and 1913:

Export trade by regions, 1897, 1907, and 1913.

[Values in thousands of yen.]

Region.	1897	1907	1913
Asia.....	59,581	191,766	275,928
Europe.....	41,665	94,367	147,225
North and South America.....	54,498	136,024	191,761

The following table affords a basis for comparison of Japan's exports to certain countries in 1897, 1907, and 1913:

Exports to certain countries, 1897, 1907, and 1913.

[Values in thousands of yen.]

Country.	1897	1907	1913	Country.	1897	1907	1913
United States.....	52,436	131,101	184,473	France.....	26,214	42,533	60,230
British India.....	5,563	13,088	29,874	Germany.....	2,207	11,256	13,132
China.....	21,325	85,619	154,660	Italy.....	2,982	13,771	29,417
Great Britain.....	8,481	22,443	32,870	Australia.....	1,875	4,794	8,638

The development of Japan's export trade was most marked, first, with Asia, and secondly with America (the United States, especially). It will be shown later that the great increase in her exports to Asia was in manufactured goods, while the increase in the exports to America was in raw materials, chiefly raw silk, and partly manufactured goods.

TRADE BY CLASSES OF COMMODITIES, 1907-1913.

The following tables show the value of Japan's imports and exports by classes of commodities, in each year from 1907 to 1913:

Imports and exports by classes of commodities, 1907-1913.

IMPORTS.

(Values in thousands of yen.)

Year.	Food, drink, and tobacco, in natural state.	Food, drink, and tobacco, partly or wholly prepared.	Raw materials.	Partly manufactured articles.	Completely manufactured articles.	Miscellaneous ("other").	Total.
1907.....	48,011	30,647	187,682	93,007	132,985	2,135	494,467
1908.....	41,078	27,203	153,428	84,009	127,128	3,411	436,257
1909.....	32,014	19,388	169,205	71,752	99,458	2,380	394,199
1910.....	25,523	19,465	231,349	82,852	102,514	2,529	464,234
1911.....	35,749	15,875	231,714	100,407	126,359	3,700	513,806
1912.....	49,508	22,546	299,354	122,805	121,170	3,607	618,992
1913.....	77,458	43,125	353,542	126,927	124,029	4,351	729,432

EXPORTS.

Year.	Food, drink, and tobacco, in natural state.	Food, etc., partly or wholly prepared.	Raw materials.	Partly manufactured articles.	Completely manufactured articles.	Miscellaneous ("other").	Total.
1907.....	17,111	27,583	43,690	198,929	142,254	2,844	432,413
1908.....	14,288	26,691	41,300	170,384	121,328	4,255	378,246
1909.....	18,102	30,428	36,902	200,915	122,571	4,194	413,114
1910.....	19,573	31,914	40,184	225,084	137,331	4,393	458,429
1911.....	20,769	31,319	40,053	212,988	137,290	5,013	447,434
1912.....	22,203	32,810	44,461	265,043	155,731	6,732	526,982
1913.....	24,655	37,488	51,340	328,084	184,914	5,979	632,460

The following table shows the percentages of the specified classes of articles in the trade of Japan for each year from 1907 to 1913:

IMPORTS.

Year.	Per cent of total represented by—					
	Food, drink, and tobacco, in natural state.	Food, etc., partly or wholly prepared.	Raw materials.	Partly manufactured articles.	Completely manufactured articles.	Miscellaneous ("other").
1907.....	9.7	6.2	38.0	18.8	26.9	0.4
1908.....	9.4	6.2	35.2	19.3	29.1	.8
1909.....	8.1	4.9	42.9	18.2	25.3	.6
1910.....	5.5	4.2	49.8	17.8	22.1	.6
1911.....	7.1	3.1	45.1	19.5	24.6	.7
1912.....	8.0	3.6	48.4	19.8	19.6	.6
1913.....	10.6	5.9	48.5	17.4	17.0	.6

EXPORTS.

Year.	Food, drink, and tobacco, in natural state.	Food, etc., partly or wholly prepared.	Raw materials.	Partly manufactured articles.	Completely manufactured articles.	Miscellaneous ("other").
1907.....	3.9	6.4	10.1	46.0	32.9	0.7
1908.....	3.8	7.0	10.9	45.0	32.1	1.2
1909.....	4.4	7.4	8.9	48.6	29.7	1.0
1910.....	4.3	7.0	8.8	49.1	29.9	.9
1911.....	4.6	7.0	9.0	47.6	30.7	1.1
1912.....	4.2	6.2	8.4	50.3	29.6	1.3
1913.....	3.9	5.9	8.1	51.9	29.2	1.0

Imports.—Of the Japanese imports in 1913, raw materials and partly manufactured articles for further use in manufacturing constituted 65 per cent of the total, raw materials alone amounting to 48 per cent.

Among the raw materials, the most important item, in fact the first in value among all the Japanese imports, was raw cotton (ginned and in the seed), amounting in quantity to 886,000,000 pounds, in value to 233,599,000 yen, and representing 32 per cent of the total imports. Of this cotton, 61 per cent came from British India and 27 per cent from the United States.*

Oil cake was second in value to cotton. Imports of oil cake amounted to nearly 40,000,000 yen, constituting 5½ per cent of the total imports. This commodity was imported chiefly from China and the Leased Territory of Kwantung (Manchuria). It is used in Japan almost exclusively for fertilizing purposes.

Crude sulphate of ammonia, to the value of nearly 16,000,000 yen, was supplied almost entirely by Great Britain. It is used in the manufacture of fertilizer and as a base for making other ammonia salts. Wool valued at 16,000,000 yen was supplied, in practically equal shares, by Australia and Great Britain. Flax, jute, and hemp exceeding 7,000,000 yen in value was imported from the Philippines, China, and British India, in the order named. Coal was imported for the use of the Japanese steel mills to the value of 4,000,000 yen.

Among the imports of partly manufactured articles, iron and steel, valued at 58,000,000 yen, held first place. This represented 7.9 per cent of the total imports. More than half of these imports consisted of bars, rods, plates, sheets, and wire. Of the iron and steel imports, 52 per cent came from Great Britain, 27 per cent from Germany, and the remainder chiefly from the United States.

The imports of completely manufactured articles represented 17 per cent of the total. The principal items were machines and engines, amounting in value to a little over 36,000,000 yen and making up 5 per cent of the total imports. In this trade Great Britain supplied 46 per cent. Other imports in this class were woolen fabrics from Great Britain and Germany, kerosene from the United States and the Dutch East Indies, and cotton fabrics chiefly from Great Britain.

Imports under the classification "Food, drink, and tobacco," accounted for 16.5 per cent of the total. The various items aggregated 120,000,000 yen. Among these, rice, to the value of 48,000,000 yen, constituted 6.65 per cent, and brown sugar, to the value of 36,549,000 yen, constituted 5.04 per cent of the total imports of all articles. The rice imported was supplied in almost equal shares by British India and French Indo-China. Of the brown sugar, 90 per cent came from the Dutch East Indies and the remainder from the Philippine Islands. The 1913 imports of rice and of wheat and wheat flour were considerably larger than those of the preceding year, owing to the crop failure in Japan. The increase in the imports of sugar was due to damage done to the Formosan sugar crop by storms, together with the increased demand for sugar to be refined for export.

Exports.—The principal class of exports in 1913 was that of partly manufactured articles, this class representing 51.87 per cent of the total exports.

As in the case of imports, where a single item, raw cotton, out-ranked all other commodities and represented nearly one-third of the total imports, so among exports, one single item, raw silk, constituted nearly 30 per cent of the total. Raw silk was exported from

* For detailed discussion and later tables for these various commodities, see section III.

Japan in 1913 to the value of 189,000,000 yen; of this, the United States received 67 per cent; France, 17 per cent; Italy, 13 per cent; and Russia, a little over 2 per cent.

Next in importance among the exports of partly manufactured articles, as well as among all exports, was the item cotton yarns. The value of Japan's exports of cotton yarns in 1913 was nearly 71,000,000 yen, constituting over 11 per cent of the total export trade. Practically all of Japan's cotton yarn went to China: China proper received 85 per cent; the leased territory, Kwantung, 5 per cent; and Hongkong, 8 per cent—most of this probably being for reshipment to other parts of China.

Copper, in ingot and slab, has long been important among the partly manufactured articles exported from Japan. Exported in 1913 to the value of 28,000,000 yen, it represented some 4½ per cent of the total exports. China was the principal purchaser, securing about one-third, while Great Britain, France, British India, and the United States followed, in the order named. Straw, chip, and hemp braids for hats were exported to the value of 16,000,000 yen, representing some 2 per cent of the total exports. Of the hat braid exported, 43 per cent went to the United States, 26 per cent to Great Britain, 14 per cent to France, and 10 per cent to Germany. Colza (rape seed) oil, fish oil, sulphur, camphor, and menthol, in the order named, were of considerable importance in the export trade.

The class of completely manufactured articles in 1913 held second place in Japan's export trade, making up 29.2 per cent of the total. The principal item was silk fabrics (total 39,000,000 yen), of which habutae alone, amounting in value to 35,000,000 yen, represented 5½ per cent of the total exports. The principal purchasers of habutae were, in the order of their importance, France, Great Britain, British India, the United States, and Australia; the percentages of the habutae exports marketed in these countries were, respectively, 27.84, 21.52, 19.53, 14.35, and 5.61.

The second largest individual item among the exports of completely manufactured articles was cotton fabrics. Taken collectively, cotton manufactures would constitute the largest item, but in the Japanese statistics they are distributed in a number of schedules and groups. The exports of cotton fabrics in 1913 were valued at 34,000,000 yen; cotton towels amounted to 2,642,000 yen; cotton knit undershirts, to 8,847,000 yen. China was the chief consumer of Japan's piece goods, while several other Asiatic countries were important among the purchasers of Japan's miscellaneous cotton manufactures.

The match exports, valued at nearly 12 million yen, or practically 2 per cent of the total exports, were purchased in 1913 almost entirely by China, Hongkong, and British India.

Other important items among the exports of completely manufactured articles were: Silk handkerchiefs, 5,000,000 yen; hats, caps, and bonnets, 5,619,000 yen; buttons, 3,312,000 yen; paper, 3,096,000 yen; pottery, 6,724,000 yen; glass and glass manufactures, 3,319,000 yen; mats and matting, 4,054,000 yen; toys, 2,490,000 yen; and umbrellas (European), 1,831,000 yen.

Food products, classed as "Food, drink, and tobacco," ranked next in importance in the export trade, constituting nearly 10 per cent of the total. Japan imports large quantities of brown sugar

and exports the refined product, the latter being the most important item among the exports of foodstuffs. The refined sugar exports amounted in 1913 to 15,831,000 yen, 2½ per cent of the total exports. All of this sugar went to China; about 90 per cent to China proper; and 7.6 to the leased territory of Kwantung.

Second in importance among the exports of food products was tea, the export in 1913 amounting to 10,076,000 yen, 1.1 per cent of the total export. Of this tea, 87.8 per cent went to the United States, nearly 10 per cent to Canada, and smaller quantities to China and other Asiatic countries.

Also important among the exports of food products were rice, fish and other sea products, saké and beer, and "comestibles in tins and bottles."

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The least important among the classes of exports was raw materials, representing 8 per cent of the total, valued at 51,300,000 yen. The most important item was coal, to the value of 23,600,000 yen, 3.7 per cent of the total exports. Of the coal exports, 31 per cent went to China; 26.5 per cent to Hongkong; 15 per cent to the Straits Settlements; 9.7 per cent to the Philippine Islands; 4.6 per cent to British India; and 4.7 per cent to the United States, the last named consisting of lump or bunker coal for American vessels and of coal for Hawaii. The coal exported is soft or bunker coal for the use of ships; for coal for industrial purposes Japan is herself largely dependent on foreign countries.

Next in importance among the raw materials exported in 1913 was wood, the exports in that year amounting to 10,943,000 yen, 1.5 per cent of the total exports. Of this wood there was shipped to China 35.8 per cent; to the United States, 12.1 per cent; to Kwantung, 10.2 per cent; to British India, 9.8 per cent; to Australia, 4.9 per cent; to Great Britain, 3.1 per cent; to France, 2 per cent; the remainder to other countries, in smaller proportions.

In the following tables the total import and export figures for the year 1913 are compared with those of 1897 and 1907, by regions and countries:

Import trade, by regions and countries, 1897, 1907, 1913.

[Values in thousands of yen.]

Imported from—	1897		1907		1913	
	Value.	Per cent of total import trade.	Value.	Per cent of total import trade.	Value.	Per cent of total import trade.
Asia:						
China.....	29,266	13.34	59,182	11.97	61,223	8.39
Kwantung.....			8,810	1.78	30,878	4.23
British India.....	29,776	13.58	74,593	15.08	173,174	23.74
Hongkong.....	12,027	5.49	821	.17	1,295	.18
Korea.....	8,864	4.04	16,372	3.31	(¹)	(¹)
Straits Settlements.....			3,062	.62	6,205	.71
Asiatic Russia.....	1,860	.85	1,656	.33	750	.11
French Indo-China.....	9,526	4.35	8,663	1.75	24,700	3.38
Dutch East Indies.....			22,039	4.46	37,389	5.13
Philippine Islands.....	2,675	1.22	2,159	.44	7,648	1.05
Siam.....	1,191	.54	2,739	.55	6,793	.79
Total Asia.....	95,185	43.41	200,096	40.46	348,055	47.71

¹ Since Sept. 1, 1910, the trade with Korea has been excluded from the Japanese trade returns.

Import trade, by regions and countries, 1897, 1907, 1913—Continued.

[Values in thousands of yen.]

Imported from—	1897		1907		1913	
	Value.	Per cent of total import trade.	Value.	Per cent of total import trade.	Value.	Per cent of total import trade.
Europe:						
Great Britain.....	65,406	29.82	116,245	23.51	122,737	16.83
France.....	5,148	2.35	7,025	1.42	5,839	.80
Germany.....	18,143	8.27	47,668	9.64	68,395	9.38
Austria-Hungary.....	86	.04	2,552	.52	3,890	.53
Belgium.....	3,173	1.45	13,898	2.71	9,448	1.29
Italy.....	213	.10	943	.19	1,078	.15
Russia.....	48	.02	175	.03	41	.01
Other European countries.....	2,833	1.29	7,207	1.46	8,872	1.22
Total Europe.....	95,050	43.34	195,213	39.48	220,290	30.21
North and South America:						
United States.....	27,031	12.32	80,697	16.32	122,408	16.78
British America.....	129	.06	1,217	.25	1,839	.25
Other American countries.....			844	.17	2,788	.38
Total America.....	27,160	12.38	82,758	16.74	127,035	17.41
Australia.....	897	.41	7,819	1.58	14,943	2.05
Egypt.....			3,457	.70	7,143	.98
Hawaii.....	1		19		91	.01
All other countries ¹	1,008	.46	5,105	1.04	11,875	1.63
Total import trade.....	219,301	100.00	494,467	100.00	729,432	100.00

¹ Includes goods from temporary warehouses and merchandise whose origin is unknown.*Export trade, by regions and countries, 1897, 1907, and 1913.*

[Values in thousands of yen.]

Exported to—	1897		1907		1913	
	Value.	Per cent of total export trade.	Value.	Per cent of total export trade.	Value.	Per cent of total export trade.
Asia:						
China.....	21,325	12.89	85,619	19.80	154,660	24.45
Kwantung.....			20,401	4.72	29,836	4.72
British India.....	5,563	3.36	13,088	3.03	29,873	4.72
Hongkong.....	25,390	15.34	24,385	5.64	33,622	5.32
Korea.....	5,197	3.14	32,792	7.58	(1)	
Straits Settlements.....			5,768	1.33	10,142	1.60
Asiatic Russia.....	1,862	1.13	5,068	1.17	4,271	.68
French Indo-China.....	36	.02	250	.06	1,035	.17
Dutch East Indies.....			2,261	.52	5,149	.81
Philippine Islands.....	186	.11	1,796	.42	6,294	.99
Siam.....	22	.01	338	.08	1,035	.16
Total Asia.....	59,581	36.00	191,766	44.35	275,928	43.62
Europe:						
Great Britain.....	8,481	5.12	22,443	5.19	32,870	5.20
France.....	26,214	15.83	42,533	9.84	60,230	9.52
Germany.....	2,207	1.33	11,256	2.60	13,132	2.08
Austria-Hungary.....	258	.15	1,149	.26	938	.15
Belgium.....	109	.07	2,054	.47	3,706	.59
Italy.....	2,982	1.80	13,771	3.18	29,417	4.65
Russia.....	178	.11	442	.10	4,897	.77
Other European countries.....	1,230	.75	719	.18	2,035	.32
Total Europe.....	41,655	25.16	94,367	21.82	147,225	23.28

¹ Since Sept. 1, 1910, the trade with Korea has been excluded from the Japanese trade returns, Korea becoming an integral part of the Japanese Empire.

Export trade, by regions and countries, 1897, 1907, and 1913—Continued.

[Values in thousands of yen.]

Exported to—	1897		1907		1913	
	Value.	Per cent of total export trade.	Value.	Per cent of total export trade.	Value.	Per cent of total export trade.
North and South America:						
United States.....	52,436	31.68	131,101	30.32	184,473	29.17
British America.....	2,055	1.24	3,864	.89	5,090	.80
Other American countries.....	7		1,050	.25	2,198	.35
Total America.....	54,498	32.92	136,024	31.46	191,761	30.32
Australia.....	1,375	1.13	4,794	1.11	8,638	1.37
Egypt.....			386	.09	1,371	.22
Hawaii.....	524	.82	3,460	.80	4,992	.79
All other countries ¹	4,992	4.47	1,607	.37	2,545	.40
Total export trade.....	163,135	100.00	432,413	100.00	632,460	100.00
		59.2		2.51		2.4

¹ Includes merchandise for ship's use and goods whose destination is unknown.

RELATION OF THE IMPORT TRADE TO THE EXPORT TRADE, 1913.

Japan's import trade in 1913 was greater by nearly 100,000,000 yen than her total export trade. The imports consisted, as stated above, mainly of raw materials, partly manufactured articles, and food-stuffs; that portion which consisted of manufactured articles was made up chiefly of machinery, woolen and cotton fabrics, kerosene and paper. Comparison of the figures for 1907 and 1913 gives an indication of the tendencies in the development of Japanese industries and trade. In 1907 the imports of raw materials constituted 38 per cent of the total, those of partly manufactured goods, 18.8 per cent; in 1913 the imports of raw materials constituted 48.5 per cent, those of partly manufactured articles, 17.4 per cent. The tendency is shown still more clearly when the survey is extended into the period of the war.³ Japan is becoming increasingly a producer of manufactured products for export. The remarkable development of Japan's export trade has taken place chiefly in the field of manufactured and partly manufactured goods; many of these articles could only be produced from imported raw materials partly manufactured products.

A comparative view of Japanese trade in 1913 and that of important western European nations and of the United States is given in the following table:

Foreign trade in 1913.

Country.	Total foreign trade.	Population.	Per capita value of foreign trade.
United Kingdom.....	\$5,763,907,000	46,036,000	\$125.20
Germany.....	4,966,665,000	67,065,000	74.02
United States.....	4,223,610,000	100,102,000	42.19
France.....	2,969,067,000	39,602,000	74.98
Austria-Hungary.....	1,253,785,000	51,505,000	24.34
Japan.....	678,222,000	53,363,000	12.71

³ See page 42, *et seq.*, for discussion of the period since 1913.

II.

SURVEY OF THE FOREIGN TRADE OF JAPAN SINCE 1913.

GENERAL REVIEW.

As indicated in the previous discussion and the table on page 1 Japan's trade with the world has had a continuous and rapid growth throughout the last half century. Beginning in 1870 with a total foreign trade of less than \$25,000,000, this modest sum has increased to over \$2,000,000,000 in 1920, and each decade has consistently shown a large increase over the preceding one as indicated by the following table:

Total trade, imports and exports—Annual averages for decades, 1870–1919.

[Values in thousands of yen.]

Period.	Total trade.		Imports.	
	Total.	Per cent increase over preceding.	Total.	Per cent increase over preceding.
1870–1879.....	49,492	.....	28,069	.....
1880–1889.....	83,428	68.56	39,277	39.98
1890–1899.....	266,783	219.75	143,986	286.55
1900–1909.....	702,846	163.45	373,555	159.40
1910–1919.....	1,924,465	173.80	908,849	143.30
1920.....	4,284,870	.....	2,336,175	.....
1921 (January–June).....	1,372,742	.....	798,889	.....

Period.	Exports.		Excess of—	
	Total.	Per cent increase over preceding.	Imports.	Exports.
1870–1879.....	21,433	.....	6,626	.....
1880–1889.....	44,151	106.00	.....	4,874
1890–1899.....	122,797	178.10	21,189	.....
1900–1909.....	329,291	168.15	44,204	.....
1910–1919.....	1,015,616	208.40	.....	106,767
1920.....	1,948,305	.....	1,887,780	.....
1921 (January–June).....	573,853	.....	1,225,036	.....

¹ Excess for the year.

Although Japan's trade grew by leaps and bounds during the decade in which the World War occurred, this decade did not, surprising as it may seem, mark Japan's greatest relative growth in commerce. As shown in the table, Japan's largest relative commercial development occurred in the decade 1890–1899, when the value of the total trade increased 220 per cent, imports 267 per cent, and

exports over 178 per cent. During the decade in which the World War occurred the value of the total trade increased 174 per cent, imports 143 per cent, and exports 208 per cent, the largest increase ever recorded for the latter in any similar period of time.

The increase during the decade 1890-1899 was accomplished without the aid of any marked increase in prices, and consequently meant that the quantity of commodities was greatly augmented. This was the beginning of the period of modern industrialism in Japan which, continued consistently to the present time, has made Japan an important commercial and industrial nation. However, notwithstanding the fact that the decade in which the World War occurred did not mark Japan's greatest advance in trade, the period since 1914 has been one of the most important in that country's history. The trade was absolutely much larger than ever before. During this period the Japanese developed new markets and a world-wide commerce of considerable proportions and Japan secured recognition as one of the great powers of the world.

As a result of the World War revolutionary changes occurred, and these changes were no less economic than political. Trade routes were altered, there were extraordinary increases in the exchange of certain commodities, importing nations became exporting and vice versa, and debtor countries became creditors or the reverse occurred in a brief time. In no country were these changes more striking than in Japan, and, as previously mentioned, the years from 1914 to 1920 constitute the most remarkable period in that country's history, viewed from a commercial and economic standpoint. The total trade more than trebled in value, exports in most years exceeded the imports, and Japan entered into a period of unwonted prosperity. Large gold reserves were accumulated, and Japan was able to loan money to her military allies.¹ Trade in markets already developed increased greatly, and in addition Japanese goods appeared in various markets to which they were practical strangers prior to the war. The

¹ The following table indicates the accumulation of gold in Japan and other leading countries:

[From Federal Reserve Bulletin, June, 1921, p. 676.]

Gold reserves of the principal countries in 1913, 1918, and 1921.

[In thousands of dollars.]

Countries.	Gold holdings.			Per cent distribution.		
	1913	1918	1921	1913	1918	1921
United States.....	691,514	2,245,720	2,529,571	21.74	37.74	37.00
United Kingdom.....	170,245	523,632	763,350	5.35	8.90	11.16
France.....	678,856	664,017	688,309	21.34	11.16	10.07
Germany.....	278,687	538,861	280,019	8.76	9.06	3.50
Netherlands.....	60,898	277,155	245,612	1.91	4.66	3.59
Spain.....	92,490	430,072	479,198	2.91	7.24	7.01
Argentina.....	224,989	269,628	450,057	7.07	4.53	6.59
Japan.....	64,983	225,821	558,819	2.04	3.79	8.17
Other countries.....	918,773	774,768	860,645	28.88	13.02	12.61
Total.....	3,181,406	5,949,674	6,835,580	100.00	100.00	100.00

In December, 1920, other nations were indebted to Japan as follows: Great Britain, 185,800,000 yen; France, 30,342,000 yen; Russia, 221,667,000 yen; a total of 437,809,000 yen. In the last six months Great Britain has paid off a very considerable part of her debt, but the French and Russian loans remain unpaid. (Economic Review, London, Aug. 12, 1921.)

course of Japan's trade during the war is suggested by the following table:

Yearly per cent of increase or decrease (—) of Japan's trade compared with 1913.

Year.	Imports.	Exports.	Total trade.	Year.	Imports.	Exports.	Total trade.
1914.....	-18	- 6	-13	1918.....	129	210	167
1915.....	-27	12	- 9	1919.....	198	232	214
1916.....	4	78	38	1920.....	220	208	215
1917.....	42	154	94				

In the study of war conditions it will be necessary to have some basic pre-war year or period for purposes of comparison. The last pre-war year 1913 is most convenient and will be used frequently in the discussion as a basis for comparison between the pre-war and the war periods. However, it is frequently desirable to have a comparison made over a longer period and for this reason many of the tables following contain statistics for years antedating 1913.

During the first two years of the war there was a tendency for commerce to fall off, as indicated both by the table immediately preceding and by the table on page 1. In 1914 the total trade decreased over 13 per cent as compared with the preceding year, while imports declined 18 per cent and exports 6 per cent. This first year showed a tendency which became more marked as the war progressed, namely, for the export trade to be relatively more prosperous than the import trade. The second year of the war the decrease was less marked, as the total trade declined but 9 per cent as compared with 1913, imports decreased 27 per cent while exports increased 12 per cent, thus emphasizing the relatively greater growth of the export trade. After 1915 the commerce of Japan showed a marked tendency to increase, as measured in value, as regards both total trade and imports and exports. The total trade reached its maximum in the calendar year 1920, when it exceeded 4,000,000,000 yen, as compared with 1,300,000,000 yen in 1913. During the period from 1913 to 1920 the total trade more than trebled or an increase of 215 per cent. In the same year imports also reached the record mark of 2,300,000,000 yen, as compared with 729,000,000 yen in 1913. It will be seen that imports also more than trebled, the percentage increase being 220. The maximum exports occurred in 1919, when, measured in value, they equaled 2,099,000,000 yen as compared with 632,000,000 yen in 1913. The exports also more than trebled, the percentage increase being 232 in the maximum year. In 1920 the total trade and imports were both the largest Japan has ever had. By this time, however, the reaction on the export trade had already been felt and although the exports in that year were still more than three times what they were in 1913, yet the maximum had been reached and passed, and the exports in that year were slightly less than in the preceding. This great increase in trade advanced Japan's rank among the states of the world and in 1920 Japan stood about fifth as a commercial nation.

Another marked feature of Japan's trade during the war was the changed relations between imports and exports. As previously mentioned since 1895 and down to the war period the imports had uniformly exceeded the exports, the years 1906 and 1909 excepted, when the exports were slightly in excess of the imports. In 1914, the first year of the war, this adverse balance of trade was reduced to a small amount and 1915 marks the beginning of a favorable balance of trade which continued during the period of hostilities. In 1915 the exports exceeded the imports by nearly 176,000,000 yen; in 1916 the excess increased to 371,000,000 yen, and reached a maximum of 567,000,000 yen in 1917. The next year the favorable balance was reduced to 294,000,000 yen. The year 1919 marks another turning point, when there was a small adverse balance of 75,000,000 yen. The next year imports exceeded the exports by the unprecedented figure of 388,000,000 yen, the largest adverse balance of trade Japan has ever had in its history. During the first six months of 1921 the imports again exceeded the exports by the large sum of 225,000,000 yen. The very heavy imports of 1920 and the large excess of imports over exports in that year are partly due to the delivery of goods which had been previously ordered but whose shipment had been delayed. During the war and immediately afterwards the Japanese, in order to take advantage of the vast opportunities in commerce, placed in other countries large orders for certain commodities, such as raw materials and machinery. Some of these orders, due to the disturbed war conditions, could not be delivered at the time but were later filled and the goods sent to Japan. The value of such imports obviously appeared in the import statistics of the years following the close of hostilities.

To the balance indicated by the exchange of commodities there should be added the income from "invisible" exports, of which Japan has considerable. This income accrues partly from the revenue derived from the carrying trade of the large merchant marine and also from the interest on foreign bonds and loans held by the Japanese.²

The reasons for the great growth of the Japanese trade are various, some of them so obvious as not to require discussions and others so complex as to make an attempt at an adequate analysis impossible in a report of this character. All the large commercial and industrial nations of Europe were engaged in war, their energies were directed to the supreme object of winning and inevitably their overseas trade

² The Japanese merchant fleet has been greatly increased during the war period, as indicated by the following table. Japan now ranks third as a carrying nation, its fleet being exceeded only by those of Great Britain and the United States.

Gross tonnage of the Japanese merchant marine (including steam and sailing vessels).

	Tons.
1914 -----	1, 708, 386
1919 -----	2, 325, 266
1921 (June) -----	3, 854, 806

According to Lloyd's Register if the building program is carried out for the remainder of the present year (1921) the Japanese tonnage will be approximately 4,000,000. The shipping companies were very prosperous during the war and paid huge dividends, in some instances the dividends equaling in a single year the invested capital of the company.

The Japanese Minister of Finance estimated that the total "invisible" balance from the beginning of the war to January, 1918, was 700,000,000 yen. (New York Evening Post, Mar. 16, 1918.)

was neglected. In many instances the ordinary commercial commodities of peace were not grown or manufactured, or if produced they were needed in the war zone. In other instances, where commodities were available, there were no shipping facilities. These nations were consequently unable to supply their usual markets with the customary products and these markets had to look elsewhere for supplies. During the first thirty-two months of the war the United States was not a belligerent, but because of the insistent demands of the European war market, the high prices, and the shorter haul, much of the exportable surplus of this country went to Europe rather than to supply the demands in other parts of the world, thus still further reducing supplies available for those markets. In 1917 the United States also became a belligerent and devoted all its energies to the prosecution of the war. Japan was likewise a belligerent, but it was far removed from the scene of most of the fighting. Its most active operation, the capture of Kiaochow from Germany, was accomplished early in the war. Its merchant marine fleet was, as compared with other belligerents, relatively free to meet the commercial demands of the depleted markets of the world. Also, Japan had large foreign orders for munitions of war, first from Russia during the time of that country's active participation in hostilities, and then later from the other belligerents, particularly the United States. These general conditions created most favorable opportunities for the development of commerce.

Another cause of the increase in trade after 1915 was the high price of silver, thus increasing the purchasing power of the Oriental countries which use silver as a standard.¹

Another and very important factor in the increase of Japan's commerce as measured in value was the great increase in unit prices. In 1919, according to Japanese Government figures, the prices of practically all staple commodities had at least nearly or quite doubled, and some had trebled or even quadrupled, as compared with pre-war figures.

¹ The following table indicates the price of silver in the years indicated:

Average price of bar silver per ounce.

Year.	Price.	Year.	Price.
1913.....	\$0. 60458	1918.....	\$0. 98446
1914.....	. 55312	1919.....	1. 12087
1915.....	. 51892	1920.....	1. 01839
1916.....	. 68647	1921, January-August.....	. 60634
1917.....	. 89525		

To and including 1917 the equivalent in United States gold coin of an ounce, 1,000 fine, taken at the average price in London and par of exchange: thereafter taken at the average price of bar silver per ounce, 1,000 fine, in New York.

The following table indicates the rise in prices of some of the more staple commodities:

Index numbers of prices of commodities (Japan).¹

[Average of prices ² in chief markets of the country.]

Commodities.	1912	1913	1914	1915	1916	1917	1918	1919
Rice.....	100	102	77	62	66	95	156	219
Barley.....	100	96	61	54	57	99	181	198
Rye.....	100	100	70	63	65	103	181	227
Wheat.....	100	104	99	103	100	124	203	203
Soya beans.....	100	100	100	80	99	124	162	198
White sugar.....	100	88	99	104	110	115	129	180
Tea.....	100	101	102	103	104	111	139	213
Beef.....	100	100	97	87	98	141	202	248
Milk.....	100	95	95	89	89	105	134	174
Ginned cotton.....	100	100	81	66	100	159	252	248
Cotton yarn.....	100	101	81	76	101	191	253	371
Raw silk.....	100	96	98	94	124	136	162	220
White cotton cloth.....	100	103	87	77	100	164	236	372
Kaiki (silk tissues).....	100	96	94	91	108	155	172	215
Pig iron.....	100	106	100	125	244	569	1,006	425
Petroleum.....	100	109	104	107	141	140	217	277
Coal.....	100	111	115	109	132	276	399	416

¹ From Twentieth Financial and Economic Annual of Japan, 1920.

² Average prices reported in 1912 taken as basis.

The rise in prices was a much more important factor in the increased value of Japan's trade than was the increase in quantities of the commodities exchanged. In some instances the quantities of the commodities did increase, but in others there was no marked change, while in still others there was actually a decrease in the quantity. This fact is one which should be borne in mind in studying the trade of Japan during the war period.

Obviously, much of the great increase in Japan's trade, like that of some other countries, was a war product based largely on inflated values and consequently could not continue when the world again adjusted itself to peace conditions. In the latter part of 1918 and the early months of 1919, immediately following the armistice, there was a slump in trade and industrial activity pending the first peace developments. This temporary depression was followed by a period of unprecedented activity and prosperity. The already high prices continued to advance and a ready sale was found for all goods in the world's depleted markets. The Japanese trade statistics of this period were also made larger by the delivery of goods which had been ordered but not received during the time of hostilities. Such unusual activity, however, could not continue and was in fact rather short-lived. For four years the world had indulged in a systematic and scientific destruction of both human and material resources and the penalty had to be paid. A world-wide depression occurred; Japan proved no exception to general conditions and has had its share of commercial and industrial stagnation.

The causes of this depression are varied and complex, many of them not at all peculiar to Japan but affecting all countries alike. Some causes are quite apparent. One very evident factor is the lack of purchasing power on the part of millions of people who were impoverished by the war. Another cause is the fact that, stimulated by

war psychology and high prices, there has been an oversupply of goods produced which could be sold at a profit. Another evident factor was the termination of all the profitable war contracts. Still another cause and one which peculiarly affected Japan, has been the fall in the price of silver,³ thus curtailing the purchasing power of some of Japan's best Oriental customers. Another important and also obvious cause of Japan's decrease in trade is the fact that the other warring nations, freed from strife, again logically turned their attention to their overseas trade and sought to regain their old markets. European and American commodities again appeared in markets in which they had been practically strangers for months or even years. The nations of the world were again competing in markets which for a considerable period of time had been supplied largely by Japanese goods.

Perhaps the most important factor affecting trade statistics, as indicated by value, was the change in unit prices. As during the period of war prosperity prices of staple commodities had doubled or trebled so that trade measured in value amounted to unprecedented figures, so now, with the fall in prices, the converse phenomenon appeared with similar force and effect. While it is true that in many instances the quantities of commodities imported or exported decreased during the past year, in other instances the great fall in the commercial figures can be attributed to the decrease in prices rather than a diminution of the volume of commodities exchanged. During the war Japan did not increase her producing capacity in the same proportion as her commerce increased as measured in value and consequently when prices fell the decrease in tabulated values was peculiarly marked.

Another factor which has affected Japan's trade adversely has been the increased cost of production, thus making competition in the world's markets more difficult. Various factors enter into this increased cost; one is the higher prices paid for labor which has taken the form not only of greater wages but also of bonuses and other methods adopted to increase the income of the worker. Since Japan is dependent on other countries for many of its basic raw materials, the increased price of these at the source, plus the high transportation charges, adds substantially to the cost of products made from such materials. Yet another factor is the fact that Japan imports a considerable amount of its more highly finished machinery. This has to be bought abroad at high prices and the transportation paid, thus making it expensive to equip a new plant and adding to overhead charges in manufacturing.

The depression in industry made itself first seriously felt in Japan about April, 1920, and the trade depression followed soon afterwards. However, because of the huge trade in the first part of that year, statistics for the calendar year do not accurately indicate conditions since the trade depression began. As the decline in commerce began near the middle of the calendar year, statistics based on the year ending June 30 give a more accurate picture of trade than those based on the calendar year. The following table shows the trade by years ending June 30:

³ See table, page 21.

Total Japanese trade for years ending June 30, 1919-1921.

[In thousands of yen.]

Year.	Imports.	Exports.	Total trade.
1919.....	1,877,632	1,892,537	3,770,169
1920.....	2,471,495	3,534,380	6,005,875
1921.....	1,517,459	2,102,181	3,619,640

It will be noted that the trade reached a high total for the year ending in June 30, 1920. The decrease appears in the following year, the total trade falling off 40 per cent in value, imports 39 per cent and exports 41 per cent as compared with the preceding twelve months.*

TRADE BY REGIONS AND COUNTRIES.**TOTAL TRADE.**

The table below indicates the total foreign trade of Japan on a regional basis for certain selected years.

Japan's total foreign trade by regions.

[Values in thousands of yen.]

Region.	1897	1907	1913	1917	1918	1919	1920	1921 (January-June).
Asia.....	154,766	391,862	623,983	1,179,627	1,748,264	2,029,380	1,940,921	660,211
Europe.....	136,715	289,580	367,516	417,359	381,044	357,963	500,908	145,114
North and South America.....	81,658	218,782	318,796	880,325	1,252,186	1,606,568	1,542,806	513,866
All other.....	9,297	26,656	51,597	161,505	248,751	215,422	299,635	63,551
Total.....	382,436	926,880	1,361,892	2,638,816	3,630,245	4,372,333	4,284,570	1,372,742

PER CENT DISTRIBUTION.

Region.	1897	1907	1913	1917	1918	1919	1920	1921 (January-June).
Asia.....	40.47	42.27	45.82	44.70	48.16	47.50	45.31	48.09
Europe.....	35.75	31.25	26.98	15.82	10.50	8.38	11.69	10.57
North and South America.....	21.35	23.60	23.41	33.36	34.50	39.08	36.02	37.44
All other.....	2.43	2.88	3.79	6.12	6.84	5.04	6.98	3.80
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

It will be seen from the table that the trade with Asia has shown less variations on a percentage basis than has the trade with either

* The depression in Japan, like that in other countries, has been both industrial and commercial and an Extraordinary Commission for the Investigation of Economic Conditions has been established for the purpose of studying the commercial and industrial situation, with the object of better organization of the resources of the country. This commission has divided itself into six sections, the first to deal with the taxation system, the second to investigate the condition of communication and transportation, while the third section will look into the banking situation. The fourth plans to investigate conditions of industry in Japan, particularly the relation between capital and labor. The fifth section is investigating the food question, while the sixth will make a general study of commerce. (Commerce Reports, July 10, 1919, p. 205.)

In order to protect its trade reputation and insure a satisfactory quality in goods exported, a considerable number of the commodities sent out of Japan are now inspected and articles not meeting certain standards may not be exported. These commodities are not usually inspected by the Government, but by representatives of the various trade associations with the approval of the Government. Inspection and permission to export are now required for matches, glass and enamel ware, braids, hosiery manufactures, silk and silk fabrics, cotton goods, mats, tea, brushes.

Europe or America. The commerce with Asia in the last fifteen years has shown some tendency to increase, but this increase has not been radical, and the war seems to have had no very violent effect on this trade. From 44 to 48 per cent of Japan's trade is with her Asiatic neighbors.

The commerce with Europe shows marked variations. In 1907 nearly one-third (31 per cent) of Japan's total trade was with the European countries, but even before the war there was a tendency for this percentage to decrease. The war period shows a great decline in this trade, the minimum being reached in 1919, when but 8 per cent of Japan's foreign commerce was with the continent of Europe. This was followed by a reaction, and the trade increased relatively in 1920 and the first half of 1921, but is still far below the pre-war proportions. The causes of this reduction are various. Most of the Japanese imports from Europe are finished products. During the war the European countries were unable to supply many of these demands. Also Japan herself is constantly meeting more and more of its needs of finished products. Likewise, the transportation shortage during the war made the long haul difficult. Also, the fact that countries nearer to Japan were cut off from their usual European supplies gave the Japanese a market for their goods closer home.

Another feature not quite so marked as the preceding, but yet quite noticeable, is the increased trade with the American continents. Before the war about one-fourth of Japan's trade was with the Americas. More recently this proportion has increased, until in 1919 nearly 40 per cent of the total was across the Pacific. This increase in trade was primarily due to the large commerce with the United States.⁵

As previously mentioned, the trade depression began in Japan somewhat before the middle of 1920, and a table indicating the trade by years ending June 30 depicts this best. This is shown by the following statistics:

Japan's total foreign trade by regions, years ending June 30, 1919, 1920, and 1921.

[In thousands of yen.]

Region.	1919	1920	1921	Per cent decrease 1920-21.
Asia.....	1,902,035	2,346,555	1,341,253	43
Europe.....	328,821	479,375	387,004	19
North and South America.....	1,313,337	1,997,783	1,030,112	48

The above table must be accepted with very considerable caution, since it represents such a short period of time. It will be noted that the greatest falling off occurs in American trade in 1921, as compared with the preceding year; Asia appears next, and Europe has the smallest decrease. This last is accounted for by the fact that the

⁵ For the United States-Japanese trade, see discussion in Section IV. For the Latin-American trade, see note, p. 40.

European trade, which was so greatly demoralized during the war, has reacted to a certain extent since the close of hostilities.

The following two tables afford a basis for comparing Japan's total trade with certain selected countries, both on an absolute and a percentage basis:

Comparison of Japan's total trade with certain countries for selected years.

[Values in thousands of yen.]

Country.	1897	1907	1913	1915	1916
United States.....	79,467	211,798	306,882	306,676	544,324
China.....	50,591	144,802	215,883	226,970	301,351
Kwantung.....		29,210	60,714	50,020	71,014
British India.....	35,339	87,681	203,047	189,788	251,082
Great Britain.....	73,887	138,688	155,607	126,578	184,390
Dutch East Indies.....		24,300	42,538	24,750	31,646
Australia.....	2,772	12,613	23,581	46,679	71,109
France.....	31,361	49,558	66,050	46,184	68,474
Cape Colony and Natal.....			520	1,000	4,283
Asiatic Russia.....	3,721	6,724	5,021	81,863	119,467
Germany.....	20,350	59,923	81,527	5,919	4,139
Italy.....	3,195	14,714	30,495	3,311	4,575
All other countries.....	81,753	147,970	170,108	131,019	228,042
Total.....	382,436	926,880	1,361,892	1,240,757	1,883,896

Country.	1917	1918	1919	1920	1921, January-June.
United States.....	838,245	1,156,155	1,594,479	1,438,195	494,774
China.....	451,652	640,858	769,150	628,359	241,440
Kwantung.....	118,905	216,892	312,523	310,548	106,471
British India.....	325,205	470,707	436,358	367,180	167,253
Great Britain.....	285,951	208,934	238,995	330,013	103,150
Dutch East Indies.....	53,578	120,514	122,877	175,853	54,775
Australia.....	60,224	113,702	87,456	129,577	22,571
France.....	102,185	145,929	75,676	88,134	7,985
Cape Colony and Natal.....	25,640	47,792	45,359	82,101	4,315
Asiatic Russia.....	77,989	44,401	75,883	26,711	8,479
Germany.....	2,520	3,430	322	16,181	16,823
Italy.....	18,389	12,190	7,130	8,494	1,673
All other countries.....	298,334	448,741	506,127	474,224	142,633
Total.....	2,638,816	3,630,245	4,272,333	4,284,570	1,372,742

PER CENT DISTRIBUTION.

Country.	1897	1907	1913	1915	1916
United States.....	20.78	22.85	22.53	24.72	28.90
China.....	13.23	15.62	15.84	18.29	16.09
Kwantung.....		1.36	1.73	4.03	3.77
British India.....	9.24	9.46	14.91	15.30	13.33
Great Britain.....	19.32	3.15	4.46	10.20	9.79
Dutch East Indies.....		2.62	3.12	2.00	1.68
Australia.....	.72	1.59	2.24	3.76	3.77
France.....	8.20	14.96	11.43	3.72	3.63
Cape Colony and Natal.....			.04	.08	.22
Asiatic Russia.....	.97	.72	.37	6.60	6.34
Germany.....	5.32	5.35	4.85	.48	.22
Italy.....	.84	6.36	5.99	.27	.24
All other countries.....	21.38	15.96	12.49	10.55	12.11
Total.....	100.00	100.00	100.00	100.00	100.00

Comparison of Japan's total trade with certain countries for selected years—Con.

PER CENT DISTRIBUTION—Continued.

Country.	1917	1918	1919	1920	1921, January-June.
United States.....	31.77	31.85	37.32	33.57	36.34
China.....	17.12	17.65	18.00	14.66	17.59
Kwantung.....	4.51	5.98	7.32	7.25	7.76
British India.....	12.32	12.97	10.21	13.70	12.18
Great Britain.....	10.07	5.76	5.59	7.70	7.51
Dutch East Indies.....	2.03	3.32	2.88	4.10	3.99
Australia.....	2.28	3.13	2.05	2.81	1.64
France.....	3.87	4.02	1.77	2.01	.58
Cape Colony and Natal.....	.97	1.31	1.06	1.92	.31
Asiatic Russia.....	2.96	1.22	1.78	.63	.62
Germany.....	.09	.09	.....	.38	1.23
Italy.....	.70	.34	.17	.20	.12
All other countries.....	11.31	12.36	11.85	11.07	10.13
Total.....	100.00	100.00	100.00	100.00	100.00

It will be noted that Japan's largest trade has been carried on constantly with the United States, the maximum amount being reached in 1919, when over 37 per cent of the commerce was with this country. Since 1913 the proportion which this trade forms of the total has shown in general an appreciable tendency to increase.

The next largest trade is with China. It will be seen that the trade with this country has increased very little relatively since 1907, the percentage remaining rather uniform and constituting about one-sixth of the total. To the Chinese commerce should logically be added that of Kwantung Province, which serves as a collecting and distributing point for other parts of China. The trade with Kwantung has shown a constant and appreciable increase since 1913. The combined trade of China proper and Kwantung Province, however, falls very considerably short of that of the United States in recent years.

British India holds the third place in the total trade statistics. On the whole, the trade of this country has shown some tendency to grow, but has remained rather uniform since 1913 on a percentage basis. The trade of British India with Japan in recent years has been somewhat less than half of that between the United States and Japan.

The trade with Great Britain has, on the whole, increased. During most of the war period there was a marked gain but a decline appeared in 1918 and 1919. In 1920 and the first part of 1921, however, there was another increase and the value of the trade in the last two years is about double what it was in 1913.

France had a relatively large trade with Japan in pre-war times, but this decreased greatly after 1913 on a relative basis, though absolutely greater, and later has become negligible. Italy's trade, though not as large as that of France in pre-war times, was yet appreciable. This also decreased greatly during the war and is negligible at the present time.

The trade with Germany, once a rather important factor, nearly disappeared during the course of the war, but in the first six months

of 1921 it revived somewhat, and during this period was larger than that of either France or Italy. Certain other countries are important, not always because of the absolute value of the trade, but because of variations since 1914. The trade with Australia grew considerably both relatively and absolutely but more recently has declined. The trade with the Dutch East Indies has also increased somewhat and up to the present shows very little relative decline. Commerce with the South African Union also increased on a percentage basis, although the absolute amounts were rather small, up to and through 1920. This trade, which consisted largely of imports of raw wool, fell off heavily during the first part of 1921. The commerce with Asiatic Russia, which grew rapidly during the early years of the war, was composed largely of exports of military supplies to Russia and decreased greatly after that country ceased to be an active belligerent.

The table below shows the trade with the same countries as in the preceding but based on years ending June 30:

Japan's total trade, years ending June 30, 1919, 1920, and 1921.

[Values in thousands of yen.]

Country.	1919	1920	1921	Per cent of decrease 1920-21.
United States.....	1, 219, 954	1, 892, 752	971, 627	42
China.....	732, 644	781, 331	498, 338	36
Kwantung.....	268, 828	383, 277	203, 246	47
British India.....	400, 084	685, 274	317, 565	54
Great Britain.....	200, 560	316, 192	262, 046	17
Dutch East Indies.....	124, 883	284, 057	120, 603	57
Australia.....	103, 552	129, 422	66, 549	49
France.....	97, 469	93, 470	50, 037	46
Cape Colony and Natal.....	51, 698	87, 684	10, 064	88
Asiatic Russia.....	74, 506	47, 591	22, 265	53
Germany.....	1, 188	2, 537	30, 662	¹ 1, 208
Italy.....	8, 621	7, 617	3, 908	49
All other countries.....	486, 183	1, 564, 671	1, 062, 930	32
Total.....	3, 770, 170	6, 275, 875	3, 619, 840	42

¹ Increase.

As mentioned before, tables of this character have to be accepted with caution due to the short period of time represented. The statistics are, however, at least interesting in indicating with what countries the greatest decline has occurred since the falling off of the Japanese trade. As might be expected the greatest reduction occurred in those countries where the Japanese had developed a trade largely as a result of war conditions. Cape Colony and Natal, the Dutch East Indies, and Asiatic Russia are illustrations of this. The trade with Australia, however, fell off no more than did the commerce with some of the older markets. The trade with Great Britain shows the least decrease of any of the more important countries. Of the large markets China, including Kwantung, the United States, and British India, the latter shows the greatest reduction. This is due to a decrease in both imports and exports. China proper shows the least reduction of any of these countries and this statement is still

true when China and Kwantung are combined. The trade with the United States has decreased but little more than that with China and Kwantung, the percentages being respectively 42 and 39. Germany is the only country showing an increase, the percentage growth being enormous, though the total amount is quite small.

The table below shows the total foreign trade of Japan with all important countries for selected years on both an absolute and percentage basis.

Total Japanese trade.

[Values in thousands of yen.]

Country.	1897		1907		1913		1917	
	Value.	Per cent of total trade.	Value.	Per cent of total trade.	Value.	Per cent of total trade.	Value.	Per cent of total trade.
Asia:								
China.....	50,591	13.36	144,801	15.63	215,883	15.84	451,652	17.11
Kwantung.....			22,211	3.15	60,714	4.45	118,905	4.51
British India.....	35,339	9.33	87,681	9.46	203,047	14.90	325,305	12.33
Hongkong.....	37,417	9.88	25,206	2.72	34,917	2.56	58,980	2.24
Korea.....	14,061	3.71	49,164	5.30	(1)		(1)	
Straits Settlements.....			8,830	.95	15,347	1.13	43,074	1.63
Asiatic Russia.....	3,721	.98	6,724	.72	5,021	.37	77,989	2.96
French Indo-China.....	9,561	2.52	8,913	.95	25,755	1.89	11,062	.42
Dutch East Indies.....			24,300	2.61	42,538	3.12	53,578	2.03
Philippine Islands.....	2,862	.76	3,955	.46	13,933	1.02	32,203	1.22
Siam.....	1,214	.32	3,077	.32	6,828	.54	6,561	.25
Other Asiatic countries.....							318	
Total Asia.....	154,766	40.86	391,862	42.27	623,963	45.82	1,179,627	44.70
Europe:								
Great Britain.....	73,887	19.51	138,688	14.96	155,607	11.43	265,950	10.08
France.....	31,361	8.28	49,358	5.35	66,059	4.85	102,186	3.87
Germany.....	20,350	5.37	58,924	6.35	81,527	5.99	2,520	.09
Austria-Hungary.....	344	.09	3,701	.40	4,828	.35	23	
Belgium.....	3,283	.87	15,453	1.68	13,154	.96	13	
Italy.....	3,195	.84	14,712	1.59	30,495	2.24	18,389	.70
Russia.....	226	.06	618	.07	4,938	.36	14,824	.56
Other European countries.....	4,069	1.08	7,926	.86	10,907	.80	13,454	.52
Total Europe.....	136,715	36.10	289,580	31.25	367,516	26.98	417,359	15.82
North and South America:								
United States.....	79,467	20.98	211,798	22.85	306,881	22.54	838,245	31.77
British America.....	2,184	.58	5,081	.55	6,929	.51	18,715	.71
Other American countries.....	7		1,903	.20	4,986	.36	23,365	.88
Total America.....	81,658	21.56	218,782	23.60	318,796	23.41	880,325	33.36
Australia.....	2,772	.74	12,613	1.36	23,581	1.73	60,224	2.28
Egypt.....			3,843	.41	8,514	.63	24,414	.93
Hawaii.....	526	.14	3,488	.38	5,082	.37	6,702	.25
All other countries ¹	5,999	.60	6,712	.73	14,423	1.06	70,165	2.66
Total trade.....	382,436	100.00	926,880	100.00	1,361,892	100.00	2,638,816	100.00

¹ Since Sept. 1, 1910, Japan's trade with Korea has been excluded from the Japanese foreign-trade returns.

² Includes goods whose origin and destination are unknown, merchandise for ships' use, and articles received from temporary warehouses.

Total Japanese trade—Continued.

[Values in thousands of yen.]

Country.	1918		1919		1920		1921 (January-June).	
	Value.	Per cent of total trade.	Value.	Per cent of total trade.	Value.	Per cent of total trade.	Value.	Per cent of total trade.
Asia:								
China.....	640,858	17.66	769,150	18.00	628,360	14.66	241,440	17.59
Kwantung.....	216,892	5.98	312,521	7.32	310,549	7.25	106,471	7.76
British India.....	470,707	12.98	436,357	10.21	587,190	13.71	167,253	12.18
Hongkong.....	64,534	1.77	60,693	1.42	76,298	1.78	30,708	2.24
Straits Settlements.....	71,533	1.97	58,054	1.36	52,867	1.23	24,036	1.75
Asiatic Russia.....	44,401	1.22	75,883	1.78	26,713	.62	8,490	.62
French Indo-China.....	65,439	1.80	125,662	2.94	24,064	.56	5,737	.42
Dutch East Indies.....	120,514	3.32	122,882	2.88	175,854	4.12	54,775	3.99
Philippine Islands.....	40,939	1.13	34,086	.80	50,781	1.19	17,125	1.25
Siam.....	11,808	.32	33,332	.78	7,446	.17	4,029	.29
Other Asiatic countries.....	639	.01	760	.01	809	.02	157	.....
Total Asia.....	1,748,264	48.16	2,029,380	47.50	1,940,921	45.31	660,211	48.09
Europe:								
Great Britain.....	208,933	5.76	238,995	5.60	330,013	7.70	103,150	7.52
France.....	145,929	4.02	75,676	1.77	86,175	2.01	7,984	.58
Germany.....	3,430	.09	323	.....	16,182	.38	16,823	1.22
Austria-Hungary.....	2	.....	.....	.....	415	.....	39	.....
Belgium.....	4	.....	3,480	.08	8,275	.19	2,376	.17
Italy.....	12,190	.34	7,129	.17	8,494	.20	1,674	.12
Russia.....	848	.02	853	.02	595	.02	211	.02
Other European countries.....	9,708	.27	31,507	.74	50,759	1.19	12,857	.94
Total Europe.....	381,044	10.50	357,963	8.38	500,908	11.69	145,114	10.57
North and South America:								
United States.....	1,156,155	31.86	1,594,479	37.32	1,438,195	33.57	494,773	36.05
British America.....	35,110	.97	30,965	.73	26,709	.62	9,891	.72
Other American countries.....	60,921	1.67	44,124	1.03	77,902	1.83	9,202	.67
Total America.....	1,252,186	34.50	1,669,568	39.08	1,542,806	36.02	513,866	37.44
Australia.....	113,702	3.13	87,456	2.05	120,576	2.80	22,571	1.64
Egypt.....	37,647	1.04	31,917	.75	43,899	1.02	8,332	.60
Hawaii.....	7,799	.21	8,897	.20	13,525	.32	4,351	.32
All other countries*.....	89,603	2.46	87,152	2.04	121,935	2.84	18,297	1.34
Total trade.....	3,630,245	100.00	4,272,333	100.00	4,284,570	100.00	1,372,742	100.00

* Includes goods whose origin and destination are unknown, merchandise for ships' use, and articles received from temporary warehouses.

IMPORT TRADE.

The following table shows the Japanese imports by regions for selected years on both an absolute and relative basis:

Japan's import trade by regions.

[Values in thousands of yen.]

Region.	1897	1907	1913	1915	1916
Asia.....	95,185	200,096	348,055	301,916	368,289
Europe.....	95,050	195,213	220,290	79,021	108,442
North and South America.....	27,160	82,758	127,035	106,736	212,501
All other.....	1,906	16,400	34,052	34,777	67,196
Total.....	219,301	494,467	729,432	532,450	756,428

Japan's import trade by regions—Continued.

[Values in thousands of yen.]

Region.	1917	1918	1919	1920	1921 (January-June).
Asia.....	475,516	312,713	1,074,375	942,547	336,212
Europe.....	82,176	82,787	162,970	305,318	127,834
North and South America.....	376,764	655,011	791,643	910,648	299,288
All other.....	101,355	117,633	144,472	177,663	35,555
Total.....	1,035,811	1,668,144	2,173,460	2,336,175	798,889

PER CENT DISTRIBUTION.

Region.	1897	1907	1913	1915	1916
Asia.....	43.40	40.46	47.71	56.70	48.69
Europe.....	43.34	39.45	30.21	14.84	14.34
North and South America.....	12.38	16.74	17.41	20.01	28.09
All other.....	.88	3.32	4.67	8.45	8.88
Total.....	100.00	100.00	100.00	100.00	100.00

Region.	1917	1918	1919	1920	1921 (January-June).
Asia.....	45.90	48.72	49.43	40.35	42.09
Europe.....	7.93	4.96	7.50	13.07	16.01
North and South America.....	36.38	39.27	36.42	38.98	37.46
All other.....	9.79	7.05	6.65	7.60	4.44
Total.....	100.00	100.00	100.00	100.00	100.00

As might be expected from the figures on total trade, Japan secured more imports from Asia than from any other region. During the war the proportion coming from Asia showed a tendency to increase, and about half of the imports came from that section. After 1919, however, there was a decline and the proportion was somewhat less than immediately prior to the war. Much the greater part of these Asiatic imports consist of raw and of partly manufactured products.

A marked feature, also to be expected from the statistics on total trade, is the decline in the imports from Europe, reaching a minimum of 5 per cent in 1918, as compared with 30 per cent in 1913. Since the war this proportion has increased but is still far below the pre-war percentage. The causes of this decrease have already been explained.

Another marked feature, also to be expected from the preceding figures, is the increased imports from the Americas. Before the war about one-sixth of Japan's imports came from the American continents. This percentage increased quite rapidly, and now nearly 40 per cent of the total imports come from North and South America, the percentage thus more than doubling since 1913, while the absolute increase has been much greater. The imports from the Americas have increased somewhat more relatively than has the total trade with these countries.

In order to depict better the conditions in the import trade in the most recent years the following table shows the imports from the regions, for certain years ending June 30:

Japan's import trade by regions, years ending June 30, 1919, 1920, and 1921.

[Values in thousands of yen.]

Region.	1919	1920	1921	Per cent decrease (—) or increase (+), 1920-21.
Asia	925, 830	1, 290, 689	599, 152	— 55. 89
Europe	108, 839	246, 918	283, 952	+ 14. 98
North and South America	716, 890	976, 998	600, 804	— 38. 49

It will be noted that the imports in 1921 as compared with those of the preceding year fell off greatly. The imports from the Americas decreased very materially, while those from Europe show a relatively large increase, indicating that the trade with Europe is making toward a more normal condition. The imports from Asiatic countries show the greatest decrease, the value being less than half of that for the preceding year.

In the table below are found statistics indicating the imports from certain countries for selected years on both an absolute and relative basis.

Comparison of Japan's imports from certain countries for selected years.

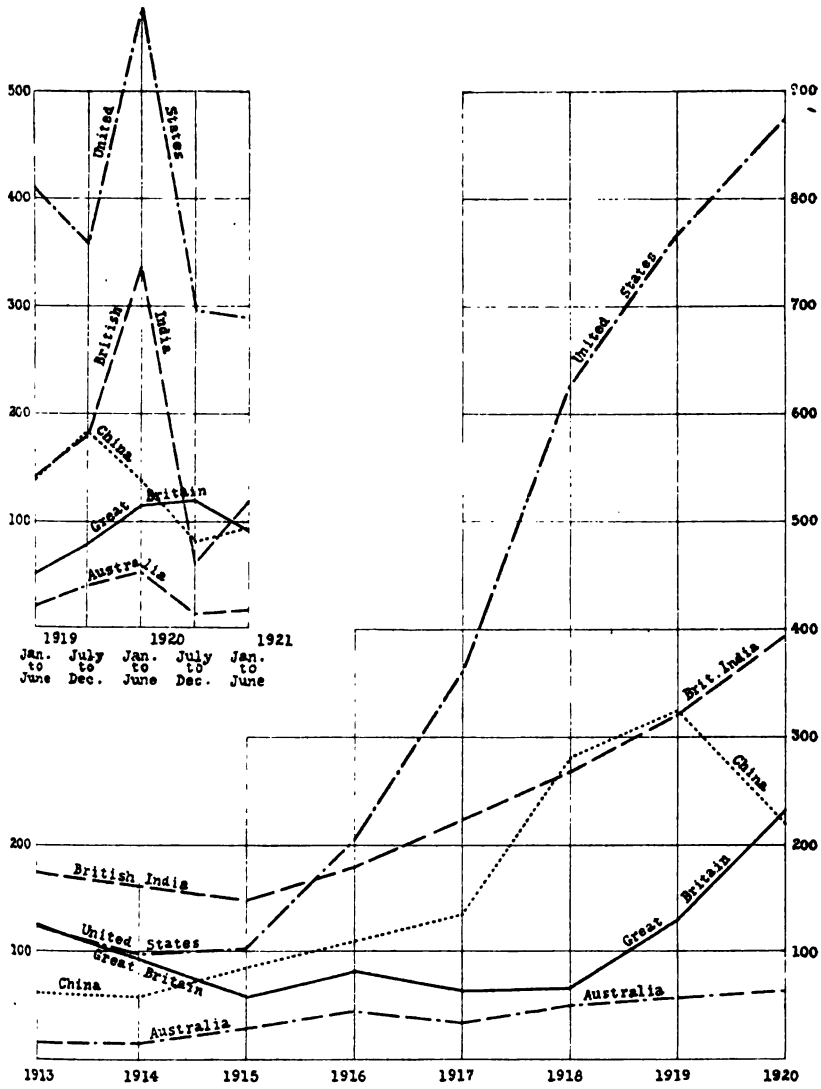
[Values in thousands of yen.]

Country.	1897	1907	1913	1915	1916
United States	27, 031	80, 697	122, 408	102, 534	204, 079
British India	29, 776	74, 593	173, 174	147, 585	179, 465
Great Britain	65, 406	116, 245	122, 737	58, 084	81, 732
China	29, 286	59, 182	61, 223	85, 848	108, 639
Kwantung		8, 809	30, 878	27, 819	33, 954
Cape Colony and Natal			45		7
Australia	897	7, 819	14, 943	28, 571	43, 333
Germany	18, 143	47, 668	68, 395	5, 919	4, 139
France	5, 148	7, 025	5, 829	3, 891	4, 468
Italy	213	943	1, 078	299	702
All other countries	43, 421	91, 496	128, 722	71, 900	95, 910
Total	219, 301	494, 467	729, 432	532, 450	756, 428

Country.	1917	1918	1919	1920	1921 (January-June).
United States	359, 708	626, 025	766, 381	873, 177	289, 775
British India	223, 941	268, 185	319, 478	394, 930	118, 387
Great Britain	63, 304	66, 067	127, 542	232, 216	91, 371
China	133, 271	281, 707	322, 101	218, 089	93, 377
Kwantung	53, 180	100, 518	162, 394	196, 863	68, 619
Cape Colony and Natal	18, 851	29, 449	37, 164	73, 895	1, 471
Australia	32, 935	48, 874	56, 630	62, 459	15, 672
Germany	2, 520	3, 430	259	15, 117	16, 165
France	4, 365	3, 730	8, 831	14, 482	4, 324
Italy	436	613	731	2, 117	695
All other countries	143, 300	239, 546	371, 949	252, 830	99, 033
Total	1, 035, 811	1, 668, 144	2, 173, 460	2, 336, 175	798, 889

CHART II.—Imports into Japan by principal countries of origin. Calendar years 1913–1920; semiannual periods, 1919, to June, 1921.

[In millions of yen.]



Comparison of Japan's imports from certain countries for selected years—Con.

PER CENT DISTRIBUTION.

Country.	1897	1907	1913	1915	1916
United States.....	12.33	16.32	16.78	19.26	26.98
British India.....	13.58	15.08	23.74	27.72	23.73
Great Britain.....	29.82	23.51	16.83	10.91	10.81
China.....	13.35	11.97	8.39	16.12	14.36
Kwantung.....		1.78	4.23	5.22	4.49
Cape Colony and Natal.....					
Australia.....	.41	1.58	2.05	5.37	5.73
Germany.....	8.27	9.64	9.38	1.11	.65
France.....	2.35	1.42	.80	.73	.59
Italy.....	.10	.19	.15	.06	.09
All other countries.....	19.79	18.51	17.65	13.50	12.87
Total.....	100.00	100.00	100.00	100.00	100.00

Country.	1917	1918	1919	1920	1921 (January-June).
United States.....	34.73	37.53	35.26	37.38	36.27
British India.....	21.62	16.07	14.70	16.90	14.82
Great Britain.....	6.11	3.96	5.87	9.94	11.44
China.....	12.87	16.90	14.82	9.33	11.69
Kwantung.....	5.13	6.03	7.47	8.43	8.59
Cape Colony and Natal.....	1.82	1.77	1.71	3.16	.18
Australia.....	3.18	2.93	2.61	2.67	1.86
Germany.....	.24	.21	.01	.65	2.02
France.....	.42	.22	.41	.62	.64
Italy.....	.04	.03	.03	.09	.09
All other countries.....	13.84	14.35	17.11	10.83	12.40
Total.....	100.00	100.00	100.00	100.00	100.00

Prior to the war Japan secured the greater part of its imports from British India, Great Britain, and the United States, though both China and Germany supplied material amounts. The proportion which British India, Great Britain, and the United States supplied over a series of years was not widely different, the respective rank of these three countries varying at different times. Since 1916, however, there has been a marked change, as the United States has taken the lead and kept it consistently. In 1913 this country supplied 17 per cent of the Japanese imports; in 1919, 35 per cent; and in 1920, 37 per cent. The imports from British India made a relative increase up to 1918 but later declined and are now appreciably less than they were in 1913 on a percentage basis though absolutely larger. The proportion of British imports, as might be expected, constantly declined during the war, but after the conclusion of peace increased again, but is still materially below the pre-war percentage. The imports from China increased during the war but declined again later on a percentage basis and are now about the same as they were in 1913. However, to the import trade of China proper should be added that from Kwantung Province. The imports from this province have constantly increased since 1907, and these, combined with those of China, give that country second place as a source of Japanese imports and also show a material increase when 1920 is compared with 1913. However, the imports from the United States in both 1920 and in the first half of 1921 were more than the combined values coming from British India and China, including Kwantung.

The imports from France have always been very small. Before the war Germany was an important source for imports, but this trade practically disappeared during the period of hostilities. In the first six months of 1921, however, the import trade from Germany showed an enormous revival on a relative basis, though still much below the pre-war figures both absolutely and proportionally. The import trade from Australia also increased greatly during the war but more recently has declined and the South African Union shows a similar reduction. In both instances these imports represent largely a war development.

The following statistics show the trade for the same selected countries, beginning with 1919, for the years ending June 30:

Japan's import trade, years ending June 30, 1919, 1920, and 1921.

[Values in thousands of yen.]

Country.	1919	1920	1921	Percentage increase or decrease (-) 1921- 1920.
United States.....	690,288	935,157	585,265	-37.4
British India.....	234,785	514,563	177,760	-65.5
Great Britain.....	82,564	191,910	209,966	9.4
China.....	323,514	320,727	174,157	-45.7
Kwantung.....	124,655	235,606	112,906	-52.1
Cape Colony and Natal.....	36,804	79,423	4,205	-94.7
Australia.....	50,042	87,792	27,888	-68.2
Germany.....	1,188	2,153	29,259	1,259.0
France.....	6,218	12,706	11,352	-10.7
Dutch East Indies.....	61,217	183,452	48,697	-73.4
Italy.....	534	1,457	1,873	26.0
All other countries.....	265,823	176,519	134,331	-23.9
Total.....	1,877,632	2,741,495	1,517,659	-44.7

The figures above indicate what might be expected—a large decrease in imports from those countries which showed a marked trade growth during the war. The imports from British India decreased greatly also. Of the important countries from the import standpoint, the United States showed the least decrease, though absolutely this was quite large; the imports from China and Kwantung have fallen off about half, as compared with the preceding year; only a moderate decrease occurs in the French trade.

Certain countries show an increase in the amount of imports when 1921 is compared with 1920. In this class Great Britain is the most important, the British imports having increased about 10 per cent during the past year. Italy also shows a large relative increase, but the absolute amount of this trade is insignificant. The large German increase is very large, but this is due to the fact that trade with this country had practically disappeared, and any small amount imported now makes a large percentage showing.

The table below indicates the imports from all important countries from the standpoint of Japanese trade for certain selected years, both on a relative and on an absolute basis:

Import trade by regions and countries, 1897, 1907, 1913, and 1917-1921.

[Values in thousands of yen.]

Country.	1897		1907		1913		1917	
	Value.	Per cent of total import trade.	Value.	Per cent of total import trade.	Value.	Per cent of total import trade.	Value.	Per cent of total import trade.
Asia:								
China.....	29,266	13.35	59,182	11.97	61,223	8.39	133,271	12.87
Kwantung.....			8,810	1.78	30,878	4.23	53,180	5.13
British India.....	29,776	13.58	74,593	15.08	173,174	23.74	223,941	21.62
Hongkong.....	12,027	5.48	821	.17	1,295	.18	1,804	.17
Korea.....	8,864	4.04	16,372	3.31	(1)		(1)	
Straits Settlements.....			3,062	.62	5,205	.71	15,050	1.45
Asiatic Russia.....	1,860	.85	1,656	.33	7,750	.11	3,755	.36
French Indo-China.....	9,526	4.34	8,663	1.75	24,700	3.38	7,296	.71
Dutch East Indies.....			22,039	4.46	37,389	5.13	17,333	1.67
Philippine Islands.....	2,675	1.22	2,159	.44	7,648	1.05	15,335	1.48
Siam.....	1,191	.54	2,739	.55	5,793	.79	4,353	.42
Other Asiatic countries.....							197	.02
Total Asia.....	95,185	43.40	200,096	40.46	348,055	47.71	475,516	45.90
Europe:								
Great Britain.....	65,406	29.82	116,245	23.51	122,737	16.83	63,304	6.11
France.....	5,148	2.35	7,025	1.42	5,829	.80	4,365	.42
Germany.....	18,143	8.27	47,668	9.64	68,395	9.38	2,520	.24
Austria-Hungary.....	86	.04	2,552	.52	3,890	.53	23	
Belgium.....	3,173	1.45	13,398	2.71	9,448	1.29	13	
Italy.....	213	.10	943	.19	1,078	.15	436	.04
Russia.....	48	.02	175	.03	41	.01	1,309	.13
Other European countries.....	2,833	1.29	7,207	1.46	8,872	1.22	10,206	.99
Total Europe.....	95,050	43.34	195,213	39.48	220,290	30.21	82,176	7.93
North and South America:								
United States.....	27,031	12.32	80,697	16.32	122,408	16.78	359,708	34.73
British America.....	129	.06	1,217	.25	1,839	.25	2,557	.25
Other American countries.....			844	.17	2,788	.38	14,499	1.40
Total America.....	27,160	12.38	82,758	16.74	127,035	17.41	376,764	36.38
Australia.....	897	.42	7,819	1.58	14,943	2.05	32,835	3.18
Egypt.....			3,457	.70	7,143	.98	10,507	1.05
Hawaii.....			19		91	.01	259	.03
All other countries *.....	1,008	.46	5,105	1.04	11,875	1.63	57,254	5.53
Total import trade.....	219,301	100.00	494,467	100.00	729,432	100.00	1,035,811	100.00

Country.	1918		1919		1920		1921, January-June.	
	Value.	Per cent of total import trade.	Value.	Per cent of total import trade.	Value.	Per cent of total import trade.	Value.	Per cent of total import trade.
Asia:								
China.....	281,707	16.50	322,101	14.82	218,089	9.33	93,377	11.69
Kwantung.....	100,518	6.03	162,394	7.47	196,863	8.43	68,619	8.59
British India.....	268,185	16.07	319,478	14.70	394,930	16.90	118,387	14.82
Hongkong.....	834	.05	1,537	.07	2,232	.10	310	.04
Korea.....	(1)		(1)		(1)		(1)	
Straits Settlements.....	29,324	1.76	28,210	1.30	17,137	.73	12,990	1.63
Asiatic Russia.....	4,367	.26	4,925	.23	3,832	.16	1,700	.21
French Indo-China.....	55,408	3.32	124,125	5.71	20,619	.88	5,294	.66
Dutch East Indies.....	48,837	2.93	65,527	3.01	68,629	2.95	24,436	3.06
Philippine Islands.....	17,438	1.04	15,530	.71	16,405	.70	8,043	1.01

* Beginning with September, 1910, the trade with Korea is excluded from the Japanese trade returns Korea becoming an integral part of the Japanese Empire.

* Includes goods whose origin is unknown and merchandise from temporary warehouses.

Import trade by regions and countries, 1897, 1907, 1913, and 1917-1921—Contd.

[Values in thousands of yen.]

Country.	1918		1919		1920		1921, January-June.	
	Value.	Per cent of total import trade.	Value.	Per cent of total import trade.	Value.	Per cent of total import trade.	Value.	Per cent of total import trade.
Asia—Continued.								
Slam.....	5,731	0.34	29,937	1.38	3,245	0.14	3,026	0.38
Other Asiatic countries.....	364	.02	611	.03	566	.03	30	.....
Total Asia.....	812,713	48.72	1,074,375	49.43	942,547	40.35	336,212	42.09
Europe:								
Great Britain.....	66,067	3.96	127,542	5.87	232,216	9.94	91,371	11.44
France.....	3,730	.22	8,831	.41	14,482	.62	4,324	.54
Germany.....	3,430	.21	259	.01	15,117	.65	16,165	2.02
Austria-Hungary.....	2	.....	.....	.....	36	.....	14	.....
Belgium.....	4	.....	49	.....	3,964	.17	2,197	.28
Italy.....	613	.03	731	.03	2,117	.09	695	.09
Russia.....	686	.04	389	.02	336	.02	211	.03
Other European countries.....	8,255	.50	25,169	1.16	37,000	1.58	12,857	1.61
Total Europe.....	82,787	4.96	162,970	7.50	305,318	13.07	127,834	16.01
North and South America:								
United States.....	626,026	37.53	766,381	35.26	873,177	37.38	289,775	36.27
British America.....	7,775	.47	6,126	.28	5,051	.22	3,836	.48
Other American countries.....	21,210	1.27	19,136	.88	32,419	1.38	5,677	.71
Total America.....	655,011	39.27	791,643	36.42	910,648	38.98	299,288	37.46
Australia.....	48,874	2.93	56,630	2.61	62,459	2.67	15,672	1.96
Egypt.....	9,179	.55	16,005	.74	13,263	.57	5,488	.69
Hawaii.....	69	.....	284	.01	263	.01	69	.....
All other countries ²	59,511	3.57	71,553	3.29	101,678	4.35	14,326	1.79
Total import trade.....	1,668,144	100.00	2,173,460	100.00	2,336,175	100.00	798,889	100.00

² Includes goods whose origin is unknown and merchandise from temporary warehouses.

EXPORT TRADE.

The following table affords a basis for the comparison of Japan's exports by regions for selected years:

Japan's export trade by regions.

[Values in thousands of yen.]

Region.	1897	1907	1913	1915	1916
Asia.....	59,581	191,766	275,928	341,534	505,487
Europe.....	41,665	94,367	147,225	126,086	216,449
North and South America.....	54,498	136,024	191,761	213,191	355,946
All other.....	7,391	10,256	17,546	27,496	49,586
Total.....	163,135	432,413	632,460	708,307	1,127,468

Region.	1917	1918	1919	1920	1921 (January-June).
Asia.....	704,111	935,551	955,005	998,374	324,000
Europe.....	335,183	268,257	194,993	195,590	18,214
North and South America.....	503,561	597,175	877,925	632,159	214,578
All other.....	60,150	131,118	60,950	122,272	17,061
Total.....	1,603,005	1,962,101	2,098,873	1,948,395	573,853

Japan's export trade by regions—Continued.

PER CENT DISTRIBUTION.

Region.	1897	1907	1913	1915	1916
Asia.....	36.52	45.35	43.62	48.22	44.83
Europe.....	25.54	21.82	23.28	17.80	19.20
North and South America.....	33.40	31.46	30.32	30.10	31.57
All other.....	4.54	1.37	2.78	3.88	4.40
Total.....	100.00	100.00	100.00	100.00	100.00

Region.	1917	1918	1919	1920	1921 (January-June).
Asia.....	43.92	47.67	45.51	51.23	56.44
Europe.....	20.91	15.20	9.29	10.04	3.01
North and South America.....	31.41	30.43	41.83	32.45	37.40
All other.....	3.76	6.70	3.37	6.28	3.15
Total.....	100.00	100.00	100.00	100.00	100.00

It will be seen from the table that there was very little change during the war period in the relative positions of the regions, so far as exports are concerned, up to and through 1917. After that year the Asiatic and American exports increased and the European exports declined, this last being the most noticeable movement of the trade. During the latter part of the war, logically enough perhaps, this European trade decreased and reached its minimum in 1919, after the war closed. In 1920 there was some small revival followed by a marked decline in the first half of 1921, when only 3 per cent of the Japanese exports went to Europe, as compared with more than 20 per cent prior to the war.

The trade with Asia after 1913 showed no marked fluctuations on a relative basis until 1920, when an increase appears, and in the first six months of 1921 over 56 per cent of Japan's exports were sent to Asiatic countries. Exports to the American continents increased materially in 1919, declined again to nearly the pre-war status on a percentage basis in 1920, and increased again in the first part of 1921. It is apparent that Asia absorbed more of the export trade lost to Europe than did the Americas.

The following table shows the export trade to the various regions for years ending June 30:

Japan's export trade, by regions, years ending June 30, 1919-1921.

[Values in thousands of yen.]

Region.	1919	1920	1921	Per cent of decrease 1920-21.
Asia.....	976,205	1,055,866	772,101	26.88
Europe.....	219,982	232,457	103,052	55.68
North and South America.....	596,447	1,020,785	429,308	57.94

It will be noted that in the twelve months preceding June 30, 1921, the export trade with the Americas suffered the greatest loss relatively, closely followed by that with Europe. The export trade with Asia shows the least decrease during the period under discussion.

The following table affords a basis for a comparison, both absolute and relative, of Japan's exports to certain countries for selected years:

Comparison of Japan's exports to certain countries for selected years.

[Values in thousands of yen.]

Country.	1897	1907	1913	1915	1916
United States.....	52,436	131,101	184,473	204,142	340,245
China.....	21,325	85,619	154,660	141,123	192,713
Kwantung.....		20,400	29,836	22,201	37,060
British India.....	5,563	13,088	29,874	42,202	71,617
Dutch East Indies.....		2,261	5,149	8,438	17,418
Great Britain.....	8,481	22,443	32,870	68,494	102,658
France.....	26,214	42,533	60,230	42,293	64,007
Australia.....	1,875	4,794	8,638	18,098	27,776
Asiatic Russia.....	1,862	5,068	4,271	78,299	117,693
Italy.....	2,982	13,771	29,417	3,012	3,872
Germany.....	2,207	11,256	13,132		
All other countries.....	40,190	80,079	79,910	80,005	152,409
Total.....	163,135	432,413	632,460	708,307	1,127,468

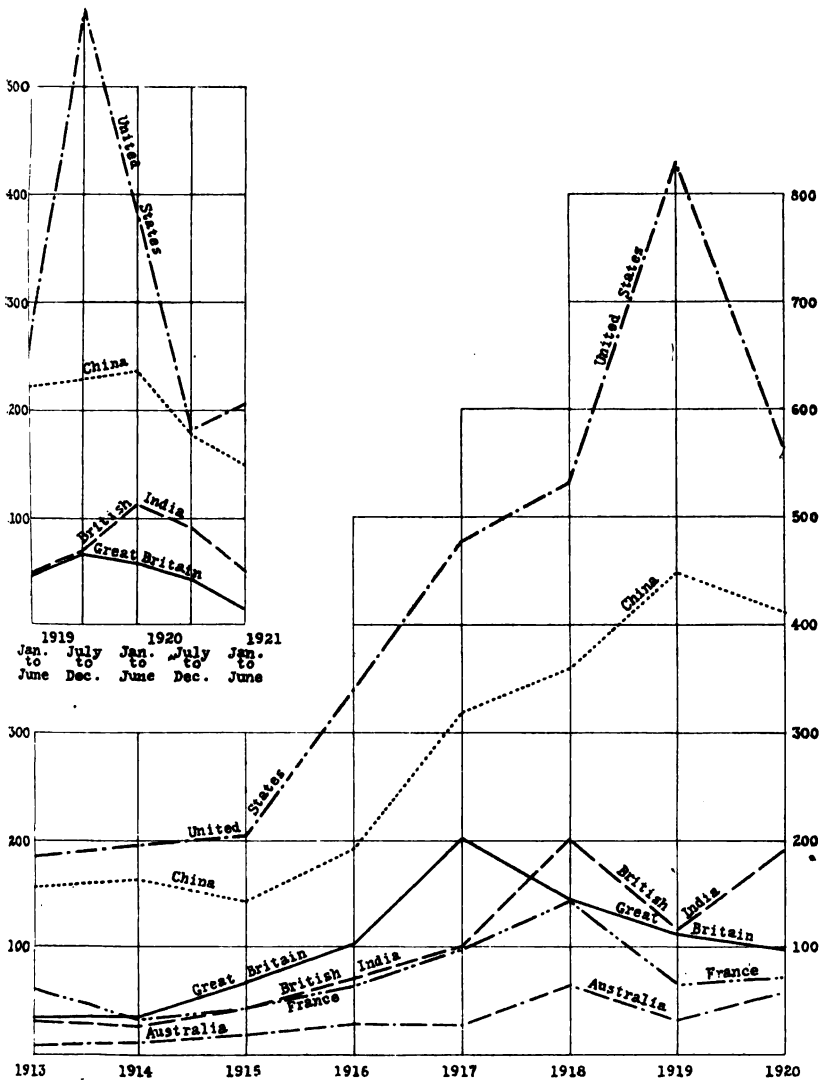
Country.	1917	1918	1919	1920	1921 (January-June).
United States.....	478,537	530,129	828,098	565,018	204,998
China.....	318,381	359,151	447,049	410,270	143,063
Kwantung.....	65,725	116,374	150,127	113,686	37,852
British India.....	101,364	202,522	116,879	192,250	48,866
Dutch East Indies.....	36,245	71,677	57,355	107,225	30,339
Great Britain.....	202,646	142,866	111,453	97,797	11,778
France.....	97,821	142,199	66,845	71,653	3,660
Australia.....	27,289	64,825	30,826	58,117	6,899
Asiatic Russia.....	74,234	40,034	70,958	22,881	6,780
Italy.....	17,953	11,577	6,398	6,377	979
Germany.....			64	1,065	638
All other countries.....	182,810	280,744	212,821	304,056	72,981
Total.....	1,603,005	1,962,101	2,098,873	1,948,395	573,853

PER CENT DISTRIBUTION.

Country.	1897	1907	1913	1915	1916
United States.....	32.14	30.32	29.17	28.82	30.18
China.....	13.07	19.80	24.45	19.92	17.09
Kwantung.....		4.72	4.72	3.13	3.29
British India.....	3.41	3.03	4.72	5.96	6.35
Dutch East Indies.....		.52	.81	1.19	1.54
Great Britain.....	5.20	5.19	5.20	9.67	9.11
France.....	16.07	9.84	9.52	5.97	5.68
Australia.....	1.15	1.11	1.37	2.56	2.46
Asiatic Russia.....	1.14	1.17	.68	11.05	10.44
Italy.....	1.83	3.16	4.65	.43	.34
Germany.....	1.35	2.60	2.08		
All other countries.....	24.64	18.52	12.63	11.30	13.52
Total.....	100.00	100.00	100.00	100.00	100.00

CHART III.—Exports from Japan to principal markets. Calendar years, 1913–1920; semi-annual periods, January, 1919, to June, 1921.

[In millions of yen.]



Comparison of Japan's exports to certain countries for selected years—Contd.
PER CENT DISTRIBUTION—Continued.

Country.	1917	1918	1919	1920	1921 (January-June).
United States.....	29.85	27.02	39.46	29.00	35.72
China.....	19.85	18.31	21.31	21.05	25.80
Kwantung.....	4.10	5.93	7.15	5.84	6.60
British India.....	6.32	10.32	5.57	9.87	8.52
Dutch East Indies.....	2.26	3.65	2.73	5.51	5.29
Great Britain.....	12.64	7.28	5.31	5.02	2.05
France.....	6.10	7.25	3.19	3.68	.64
Australia.....	1.70	3.31	1.46	2.98	1.20
Asiatic Russia.....	4.63	2.04	3.38	1.17	1.18
Italy.....	1.12	.60	.31	.33	.17
Germany.....				.05	.12
All other countries.....	11.43	14.29	10.13	15.50	12.71
Total.....	100.00	100.00	100.00	100.00	100.00

The United States is the largest market for Japan's exports, purchasing about one-third of the total. The exact proportion of the exports sent to the United States has varied somewhat from year to year, though not radically since the pre-war period, and on the whole has remained rather uniform if percentages alone are considered. There was considerable increase on a relative basis in the first half of 1921 but the percentage for these months was not as much as that for 1919, which marked the maximum.

China is Japan's next largest export market. During the war there was an appreciable tendency for the exports to China to decrease relatively, but after the conclusion of peace the Chinese proportion again increased and the last year and a half approached the pre-war status. The exports to Kwantung Province have remained rather uniform on a percentage basis, though showing some tendency to increase since 1918. The export trade to China and Kwantung combined equaled that of the United States in 1913, but since then the largest trade has always been with the United States and in recent years the value of exports sent the United States has exceeded by an appreciable amount those going to China and Kwantung.

British India is now Japan's third largest export market, though the amount sent to that country is much less than that shipped either to the United States or to China. The exports to British India have quite consistently increased for a considerable number of years and at present nearly one-tenth of the total Japanese exports are marketed there.

Before the war France was Japan's third largest export market. The exports to that country, however, have decreased since 1913 and are now very small. Great Britain also afforded a market for an appreciable amount of Japanese goods prior to the war. During the period of hostilities these exports increased but after the conclusion of peace fell off again and during the first half of 1921 were quite small. The export trade to Germany was never large and is now negligible and substantially the same is true of the export trade to Italy. During the war a thriving export trade was built up with the Dutch East Indies and this trade has continued to increase relatively. The exports to Asiatic Russia increased rapidly on a percentage basis between 1913 and 1917, but since the latter year have declined again.

The table below shows the export trade for certain countries by years ending June 30.

Japan's export trade, years ending June 30, 1919, 1920, and 1921.

[Values in thousands of yen.]

Country.	1919	1920	1921	Per cent of decrease, 1920-21.
United States.....	529,666	957,595	386,362	59.65
China.....	409,130	460,604	324,181	29.66
Kwantung.....	144,173	147,671	90,340	38.83
British India.....	165,299	170,711	139,805	18.10
Dutch East Indies.....	63,666	100,605	71,906	28.51
Great Britain.....	117,996	124,282	52,090	58.09
France.....	91,251	80,764	38,685	52.11
Australia.....	53,510	41,630	38,661	7.11
Asiatic Russia.....	69,807	42,897	18,602	56.63
Italy.....	8,087	6,130	2,035	66.81
Germany.....		384	1,403	¹ 365.40
All other countries.....	239,953	1,401,107	938,121	33.04
Total.....	1,892,538	3,534,380	2,102,181	40.5.

¹ Increase.

It is evident from the above table that exports to the United States fell off more than those to any other of the principal countries in the twelve months preceding June 30, 1921. The exports to China and Kwantung also decreased materially but relatively much less than those to the United States. The exports to British India declined the least of any of those to the more important countries. The value of the commodities sent to Great Britain showed a big reduction during this twelve months' period, and the same is true also of France. The exports to Italy have also shown a big percentage decrease, but the absolute amount is small. The exports to Australia show the smallest decline, and the value of the commodities sent to Dutch East Indies did not decrease as much as did those to most of the countries. The absolute amount, however, in either case is not so very large.⁶

⁶ The following statistics show the export and import trade with the more important Latin-American countries:

Trade with Latin America.

[Values in thousands of yen.]

Year.	Argentina.	Mexico.	Peru.	Chile.	Brazil.
Japan's imports:					
1907.....		1	483	358	
1913.....	7	6		2,773	
1915.....		7	22	2,999	
1916.....	61	7	490	6,091	40
1917.....	3,149	6	136	9,717	56
1918.....	8,768	45	686	11,261	112
1919.....	2,398	177	863	13,823	646
1920.....	3,927	32	488	24,679	1,885
1921 (January-June).....	268	69	1,064	347	153
Japan's exports:					
1907.....		841	88	130	
1913.....	1,422	525	118	131	
1915.....	1,129	13	135	170	
1916.....	1,302	580	503	927	101
1917.....	3,492	160	771	2,374	464
1918.....	25,674	354	2,063	4,705	3,367
1919.....	11,365	1,155	2,739	3,290	1,505
1920.....	23,686	1,322	3,724	2,222	4,220
1921 (January-June).....	1,134	558	545	233	213

It will be seen that Chile is the only Latin-American country from which Japan draws any appreciable amount of supplies. The imports from this country consisted principally of nitrates and the trade has fallen off immensely during the more recent months. Argentina afforded the largest market for Japanese exports, and this trade too now shows a very marked decrease.

The table below shows the exports to all important countries for certain selected years, both on an absolute and a percentage basis:

Export trade, by regions and countries, 1897, 1907, 1913, and 1917-1921.

[Values in thousands of yen.]

Country.	1897		1907		1913		1917	
	Value.	Per cent of total export trade.	Value.	Per cent of total export trade.	Value.	Per cent of total export trade.	Value.	Per cent of total export trade.
Asia:								
China.....	21,325	13.38	85,619	19.80	154,661	24.45	218,381	19.85
Kwantung.....			20,401	4.72	29,836	4.72	65,725	4.10
British India.....	5,563	3.49	13,068	3.03	29,873	4.72	101,364	6.32
Hongkong.....	25,390	15.93	24,386	5.64	33,622	5.32	57,176	3.57
Korea.....	5,197	3.26	32,792	7.58	(1)	(1)		
Straits Settlements.....			5,768	1.33	10,142	1.60	28,024	1.75
Asiatic Russia.....	1,862	1.17	5,068	1.17	4,271	.68	74,234	4.63
French Indo-China.....	36	.02	250	.06	1,055	.17	3,766	.23
Dutch East Indies.....			2,261	.52	5,149	.81	36,245	2.26
Philippine Islands.....	186	.12	1,796	.42	6,284	.99	16,868	1.05
Siam.....	22	.01	337	.08	1,085	.16	2,208	.16
Other Asiatic countries.....							120	
Total Asia.....	59,581	37.38	191,766	44.35	275,928	43.62	704,111	43.92
Europe:								
Great Britain.....	8,481	5.32	22,443	5.19	32,870	5.20	202,646	12.64
France.....	26,214	16.45	42,533	9.84	60,230	9.52	97,821	6.10
Germany.....	2,207	1.38	11,256	2.60	13,132	2.08		
Austria-Hungary.....	258	.16	1,149	.26	938	.15		
Belgium.....	109	.07	2,054	.47	3,706	.59		
Italy.....	2,982	1.87	13,771	3.18	29,417	4.65	17,953	1.12
Russia.....	178	.11	442	.10	4,897	.77	13,515	.84
Other European countries.....	1,238	.78	719	.18	2,035	.32	3,248	.21
Total Europe.....	41,665	26.14	94,367	21.82	147,225	23.28	335,183	20.91
North and South America:								
United States.....	52,436	32.90	131,101	30.32	184,473	29.17	478,537	29.85
British America.....	2,055	1.29	3,894	.89	5,090	.80	16,156	1.01
Other American countries.....	7		1,059	.25	2,198	.35	8,866	.55
Total America.....	54,498	34.19	136,024	31.46	191,761	30.32	503,561	31.41
Australia.....	1,875	1.18	4,794	1.11	8,638	1.37	27,289	1.70
Egypt.....			386	.09	1,371	.22	13,507	.84
Hawaii.....	524	.33	3,469	.80	4,992	.79	6,443	.41
All other countries ¹	4,992	.78	1,607	.37	2,545	.40	12,911	.81
Total export trade.....	173,135	100.00	432,413	100.00	632,460	100.00	1,603,005	100.00

Country.	1918		1919		1920		1921 (January-June).	
	Value.	Per cent of total export trade.	Value.	Per cent of total export trade.	Value.	Per cent of total export trade.	Value.	Per cent of total export trade.
Asia:								
China.....	359,151	18.31	447,049	21.31	410,271	21.05	148,063	25.80
Kwantung.....	116,374	5.93	150,127	7.15	113,686	5.84	37,852	6.60
British India.....	202,522	10.32	116,879	5.57	192,250	9.87	48,856	8.52
Hongkong.....	63,700	3.25	59,156	2.82	74,066	3.80	30,398	5.30
Straits Settlements.....	42,209	2.15	29,844	1.43	35,730	1.83	11,046	1.92
Asiatic Russia.....	40,034	2.04	70,958	3.38	22,881	1.17	6,780	1.18
French Indo-China.....	10,031	.51	1,537	.07	3,445	.18	443	.08
Dutch East Indies.....	71,677	3.65	57,355	2.73	107,225	5.51	30,339	5.29

¹ Beginning with Sept. 1, 1910, the trade with Korea is excluded from the Japanese trade returns.

² Includes merchandise for ships' use and goods whose destination is unknown.

Export trade, by regions and countries, 1897, 1907, 1913, and 1917-1921—Contd.

[Values in thousands of yen.]

Country.	1918		1919		1920		1921 (January-June).	
	Value.	Per cent of total export trade.	Value.	Per cent of total export trade.	Value.	Per cent of total export trade.	Value.	Per cent of total export trade.
Asia—Continued.								
Philippine Islands.....	23,501	1.20	18,556	0.88	34,376	1.76	9,082	1.53
Siam.....	6,077	.31	3,395	.17	4,201	.22	1,003	.17
Other Asiatic countries.....	275	.....	149	.....	243	.....	123	.....
Total Asia.....	935,551	47.67	955,005	45.51	998,374	51.23	324,000	56.44
Europe:								
Great Britain.....	142,866	7.28	111,453	5.31	97,797	5.02	11,779	2.05
France.....	142,199	7.25	66,845	3.19	71,653	3.68	3,690	.64
Germany.....	.....	.....	64	.....	1,065	.05	658	.12
Austria-Hungary.....	.....	.....	.....	.....	379	.02	25	.....
Belgium.....	.....	.....	3,431	.16	4,311	.22	179	.03
Italy.....	11,577	.60	6,398	.31	6,377	.33	979	.17
Russia.....	162	.....	464	.02	209	.01	.....	.....
Other European countries.....	1,453	.07	6,338	.30	13,799	.71	934	.....
Total Europe.....	298,257	15.20	194,993	9.29	195,590	10.04	18,214	3.01
North and South America:								
United States.....	530,129	27.02	828,098	39.46	565,018	29.00	204,998	35.72
British America.....	27,335	1.39	24,839	1.18	21,658	1.11	6,065	1.06
Other American countries.....	39,711	2.02	24,988	1.19	45,483	2.34	3,525	.62
Total America.....	597,175	30.43	877,925	41.83	632,159	32.45	214,578	37.40
Australia.....	64,828	3.31	30,826	1.46	58,117	2.98	6,899	1.20
Egypt.....	28,468	1.45	15,912	.76	30,636	1.57	2,844	.50
Hawaii.....	7,730	.40	8,613	.41	13,262	.68	4,282	.75
All other countries*.....	30,092	1.54	15,599	.74	20,257	1.05	3,036	.50
Total export trade.....	1,962,101	100.00	2,098,873	100.00	1,948,396	100.00	573,853	100.00

* Includes merchandise for ships' use and goods whose destination is unknown.

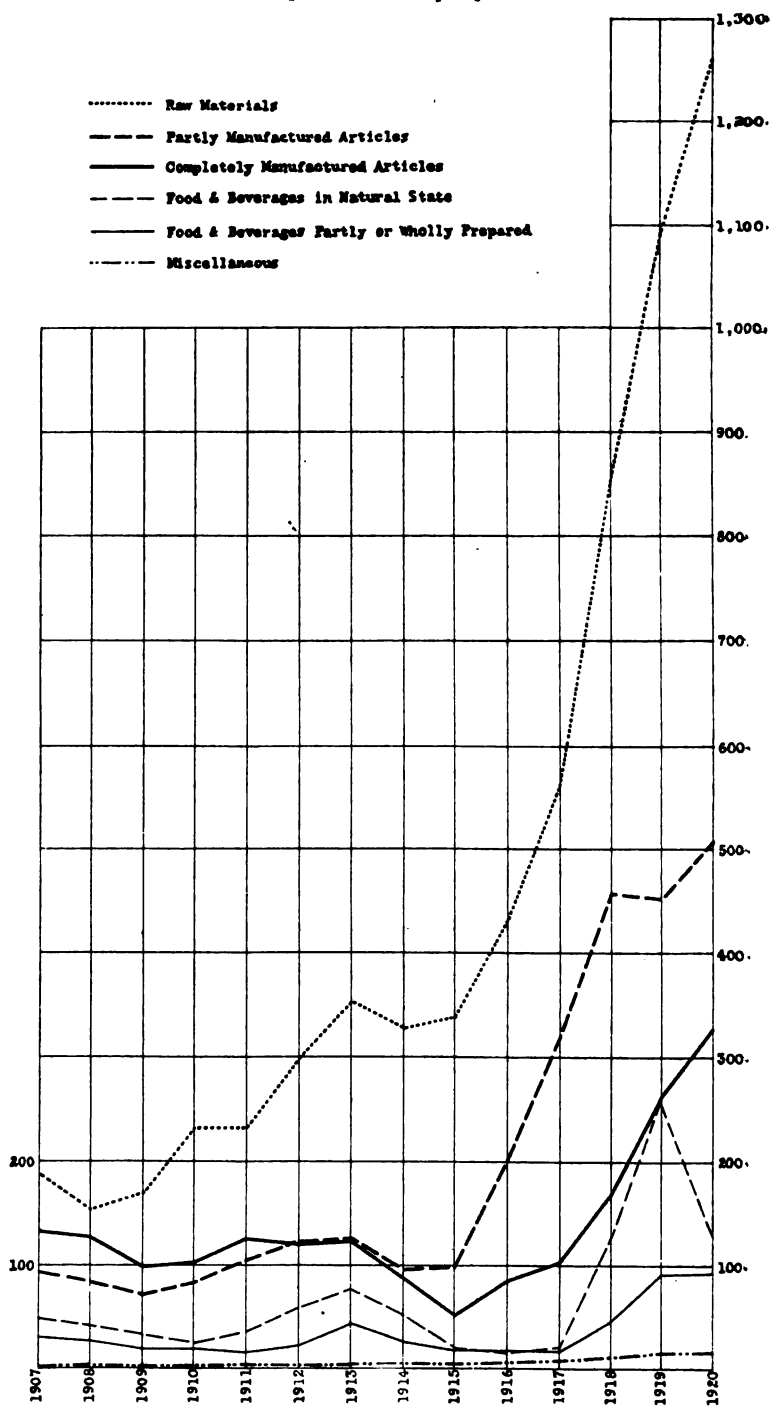
TRADE BY COMMODITIES.

GENERAL CLASSES.

In order to indicate the general character of the imports and exports of Japan the various commodities have been officially grouped into six broad classes. The tables below show the absolute amount of each of these classes and also what per cent each group forms of the total imports and exports for the years 1907 to 1921.

CHART IV.—Imports into Japan by general groups of commodities.

[In millions of yen.]



THE FOREIGN TRADE OF JAPAN.

43

Imports, by classes of commodities.

[Values in thousands of yen.]

Year.	Food, drink, and tobacco, in natural state.	Food, drink, and tobacco, partly or wholly prepared.	Raw ma- terials.	Partly manufac- tured articles.	Completely manufac- tured articles.	Miscel- laneous ("other").	Total.
1907.....	48,011	30,647	187,682	93,007	132,985	2,135	494,467
1908.....	41,078	27,203	153,428	84,009	127,128	3,411	436,257
1909.....	32,014	19,388	169,205	71,752	99,458	2,381	394,199
1910.....	25,523	19,465	231,349	82,852	102,514	2,530	464,234
1911.....	35,749	15,875	231,714	100,407	126,359	3,701	513,806
1912.....	49,508	22,546	299,354	122,805	121,170	3,608	618,992
1913.....	77,458	43,125	353,542	126,927	124,029	4,351	729,432
1914.....	52,119	26,621	328,741	96,253	87,249	4,753	595,736
1915.....	20,008	18,134	339,836	98,377	51,473	4,623	532,450
1916.....	14,673	16,774	431,904	201,561	85,002	6,514	756,428
1917.....	20,285	16,560	564,610	322,507	103,705	8,163	1,035,811
1918.....	128,654	46,853	855,138	457,643	169,374	10,492	1,668,144
1919.....	259,703	91,620	1,093,754	451,387	261,161	15,835	2,173,460
1920.....	129,079	93,325	1,260,106	509,067	328,364	16,198	2,336,139
1921 (January- June).....	42,841	34,143	376,890	179,199	159,213	6,604	798,889

Per cent of total represented by—

Year.	Food, drink, and tobacco, in natural state.	Food, etc., partly or wholly prepared.	Raw ma- terials.	Partly manufac- tured articles.	Completely manufac- tured articles.	Miscella- neous ("other").
1907.....	9.7	6.2	38.0	18.8	26.9	0.4
1908.....	9.4	6.2	35.2	19.3	29.1	.8
1909.....	8.1	4.9	42.9	18.2	25.3	.6
1910.....	5.5	4.2	49.8	17.8	22.1	.6
1911.....	7.1	3.1	45.1	19.5	24.6	.7
1912.....	8.0	3.6	48.4	19.8	19.6	.6
1913.....	10.6	5.9	48.5	17.4	17.0	.6
1914.....	8.7	4.5	55.2	16.2	14.6	.8
1915.....	3.7	3.4	63.8	13.5	9.7	.9
1916.....	1.9	2.2	57.1	26.6	11.3	.9
1917.....	2.0	1.6	54.5	31.1	10.0	.8
1918.....	7.7	2.7	51.3	27.4	10.2	.6
1919.....	12.0	4.2	50.3	20.8	12.0	.7
1920.....	5.5	4.0	53.9	21.8	14.1	.7
1921 (January- June).....	5.4	4.3	47.2	22.4	19.9	.8

Exports, by classes of commodities.

[Values in thousands of yen.]

Year.	Food, drink, and tobacco, in natural state.	Food, drink, and tobacco, partly or wholly prepared.	Raw ma- terials.	Partly manufac- tured articles.	Completely manufac- tured articles.	Miscella- neous ("other").	Total.
1907.....	17,111	27,583	43,690	198,929	142,254	2,845	432,413
1908.....	14,288	26,691	41,300	170,384	121,328	4,255	378,246
1909.....	18,102	30,428	36,902	200,915	122,571	4,195	413,113
1910.....	19,573	31,914	40,184	225,034	137,331	4,394	458,429
1911.....	20,769	31,319	40,053	212,988	137,290	5,014	447,434
1912.....	22,203	32,810	44,461	265,043	155,731	6,735	526,982
1913.....	24,655	37,488	51,340	328,084	184,914	5,979	632,460
1914.....	26,105	37,418	45,492	306,360	167,890	7,837	591,101
1915.....	37,434	42,683	45,423	323,401	242,887	16,499	708,307
1916.....	47,336	57,220	59,014	540,924	380,723	42,251	1,127,468
1917.....	73,498	98,690	81,484	725,577	588,155	35,602	1,603,005
1918.....	92,375	117,785	101,822	757,263	853,825	39,031	1,962,101
1919.....	64,816	84,846	109,270	906,131	901,423	32,387	2,098,673
1920.....	44,992	97,289	140,105	678,571	962,928	24,504	1,948,389
1921 (January- June).....	11,373	19,428	38,657	227,531	267,694	9,219	573,902

Exports, by classes of commodities—Continued.

Year.	Per cent of total represented by—					
	Food, drink and tobacco, in natural state.	Food, etc., partly or wholly prepared.	Raw materials.	Partly manufactured articles.	Completely manufactured articles.	Miscellaneous ("other").
1907.....	3.9	6.4	10.1	46.0	32.9	0.7
1908.....	3.8	7.0	10.9	45.0	32.1	1.2
1909.....	4.4	7.4	8.9	48.6	29.7	1.0
1910.....	4.3	7.0	8.8	49.1	29.9	.9
1911.....	4.6	7.0	9.0	47.6	30.7	1.1
1912.....	4.2	6.2	8.4	50.3	29.6	1.3
1913.....	3.9	5.9	8.1	51.9	29.2	1.0
1914.....	4.4	6.4	7.7	51.8	28.4	1.3
1915.....	5.2	6.0	6.4	45.8	34.3	2.3
1916.....	4.2	5.1	5.2	48.0	33.8	3.7
1917.....	4.6	6.1	5.1	45.3	36.7	2.2
1918.....	4.7	6.0	5.2	38.6	43.5	2.0
1919.....	3.1	4.0	5.2	43.2	42.9	1.5
1920.....	2.3	5.0	7.2	34.8	49.4	1.3
1921 (January-June).....	2.0	3.4	6.7	39.6	46.6	1.7

IMPORTS.

IMPORTS BY CLASSES OF COMMODITIES.

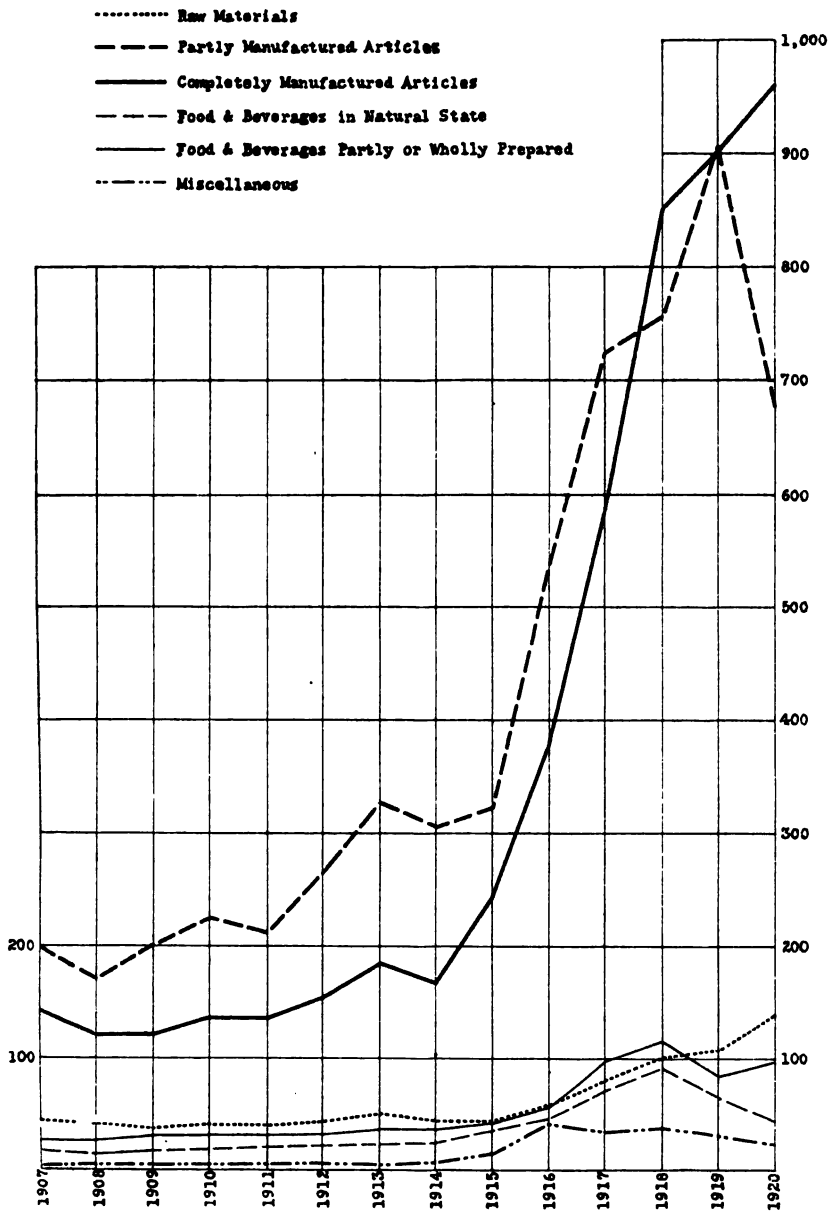
The imports of the first general class, food, drink, and tobacco, in the natural state, during the pre-war period 1907 to 1914, remained fairly uniform on a relative basis, though there were some fluctuations. Occasional marked increases as in 1913 were usually caused by increased quantities of rice imported because of failure of the local crop. During the first years of the war the imports of this class, following the general tendency of Japanese trade, declined materially. In 1918 and 1919 prices were higher and there were large increases in value. The unusually heavy imports of 1919 were caused both by large importations of rice, partly by the Government, in order to ward off a threatened shortage, and also to great increases in the unit value of this article during that year.

The second group, food, drink, and tobacco, partly or wholly prepared, has shown some tendency to decline relatively—a tendency particularly noticeable during the war period. In 1919 and 1920 the absolute figures increased greatly, but the percentages remained at about the pre-war figures.

The imports of raw materials have shown in general a constant tendency to increase, both relatively and absolutely, for some time, and during the last decade the imports of this character have constituted about one-half of the total imports of Japan. The absolute increase in this class was very great in 1919 and 1920, higher prices being a large factor in this increase. The appreciable increase in the trade in this group and the decline in the manufactured class during the war illustrates best an outstanding feature of the Japanese import trade; that is, a constant increase in the importance of raw or partly manufactured materials and a decrease in the relative importance of the more finished commodities.

CHART V.—Exports from Japan by general groups of commodities.

[In millions of yen.]



The imports classified as partly manufactured have also shown some tendency to increase, although this is not quite so marked as it has been in the case of raw materials. The partly manufactured group has constituted from one-fifth to one-third of the total imports of Japan and this group combined with the raw material group make up more than two-thirds of the total imports. Here again there were very material increases in the absolute amount of imports during the later years of the war and those immediately following, and an appreciable increase in the percentage column.

The next group, completely manufactured articles, has shown, as might be expected, a general tendency to decrease, especially on a proportional basis, for the last fifteen years, as the Japanese have constantly supplied more and more of their own demands for this class of commodities. In 1907 this group represented about one-fourth of the total imports, while during the war this shrank to about one-tenth, though after the close of hostilities it again increased somewhat, being about one-fifth of the total imports in the first part of 1921.

The miscellaneous class constitutes but a very small proportion of the total trade.

IMPORTS BY PRINCIPAL ARTICLES.⁷

RAW MATERIALS.

Since raw material constitutes the largest class of imports and also since the largest individual items in the import schedule are raw materials, articles of this description will be discussed first. Due, however, to the shifting of the trade during the war and the enormous increases in the value of certain articles imported, it is difficult to present any logical scheme of discussion.

Cotton.—The most important single article in the entire Japanese schedule of imports is raw cotton. In 1920 Japan imported 7,800,000 piculs (1,039,900,000 pounds) of raw cotton, which was valued at over 721,000,000 yen. In 1913, 6,700,000 piculs (893,300,000 pounds) were imported valued at 234,000,000 yen. In 1920 the value of the raw cotton imported represented 31 per cent of the total imports for the year. During the war and immediately following the proportion supplied by the United States increased, reaching a maximum in 1920 of 42 per cent. British Indian supplied the greater proportion of the remainder, and in 1920, 50 per cent came from that country. It will be seen that the value of cotton imports in 1920 increased by 209 per cent, while the quantity increased only about 17 per cent as compared with 1913. The great increase in the rise in the price of this article is an appreciable factor in accounting for Japan's large total imports, as measured in value.

Oil cake.—Oil cake is usually the second largest individual import measured in value. In 1920 the value of this import was nearly 151,000,000 yen as compared with 39,000,000 yen in 1913. The quantity increased from 950,000 tons in 1913, to 1,335,000 tons in 1920, an

⁷ For more details regarding these various articles see the tables and discussion in section III.

increase of 282 per cent in value and 40 per cent in quantity. The leased territory of Kwantung supplies the greater part of this import, although China also furnishes a large quantity. (Since this oil cake is used almost exclusively for fertilizer, the increased imports are an indication of the prosperity of the Japanese farmers.

Wool.—In 1920 Japan imported 56,000,000 kin (74,000,000 pounds) of wool, valued at 122,000,000 yen as compared with an import of 16,000,000 kin (21,000,000 pounds) in 1913, valued at 16,000,000 yen. The imports of wool in the period 1913 to 1920 increased 660 per cent in value and 250 per cent in quantity. The source of this commodity has varied. Before the war and during the first years of the conflict Australia supplied most of it, but later the South African countries (Cape Colony and Natal) furnished the greater part.

Sulphate of ammonia.—In 1919 crude sulphate of ammonia imports were valued at 27,000,000 yen and in 1920 at 20,000,000 yen, the quantities being, respectively, 1,907,000 kin (2,600,000 pounds) and 1,200,000 kin (1,590,000 pounds). In 1913 there were 1,900,000 kin (2,459,000 pounds) imported, which were valued at 16,000,000 yen. It will be seen that in 1919 the quantity as compared with 1913 had increased slightly, while the value had increased over 70 per cent, and in 1920 there was a decrease in quantity of over 35 per cent and an increase in value of about 25 per cent. During the war the imports of this commodity very materially decreased, and but little was imported during the years 1915 to 1918, but the imports of 1919 and 1920 approached the normal amounts. Great Britain has been and is the main source of supply for this article, although in recent years increasing quantities have been coming from Kwantung and the United States.

Coal.—In 1920, 797,000 tons of coal, valued at 20,000,000 yen, were imported. In 1913, 572,000 tons, valued at 4,000,000 yen, were brought into the country, an increase during this period of 394 per cent in value and 39 per cent in quantity. China supplied the greater part of this coal, although smaller proportions came from Kwantung Province and French Indo-China.

Flax, hemp, and jute.—In 1919 the value of the flax, hemp, and jute imports was about 17,000,000 yen, and in 1920 about 15,000,000 yen, as compared with 7,000,000 yen in 1913. Prior to and during the war these articles came from the Philippines, China, and British India in the order named, but in 1919 and 1920 China had the leading place. In the first six months of 1921, however, the pre-war status again prevailed.

Other articles.—Another important item in this class is the hide and skin imports, which increased from 2,500,000 yen in 1913 to 19,000,000 yen in 1920, much the greater part coming from China. Caustic soda, the imported value of which increased from 1,300,000 yen in 1913 to 7,500,000 yen in 1919 and 5,429,000 yen in 1920, is also included in this class. Before the war Great Britain supplied practically all of this, but in more recent years the trade has been about equally divided between that country and the United States.

PARTLY MANUFACTURED ARTICLES.

Since there is no available list of articles which are officially designated as partly manufactured, it is impossible to draw the line accu-

rately between this class and that designated as completely manufactured.

Iron and steel.—The imports of certain iron and steel products are one of the most important items in this group. In 1920, the year of the maximum imports of these articles, over 2,000,000,000 kin were brought into the country, valued at about 264,000,000 yen, thus constituting 12 per cent of the total imports of Japan. In 1913 these commodities were imported to the extent of 1,200,000,000 kin, valued at 57,000,000 yen. It is apparent that while the value of these imports has more than quadrupled since 1913, the quantities, while larger, have shown no such proportionate increase. Prior to the war Great Britain was the main source of supply, although Germany furnished a very appreciable part of the total. After the outbreak of hostilities the German imports ceased and those from England decreased, until they became negligible in 1918. Before the war the United States supplied but a small part of this iron and steel, but the American proportion constantly increased, until the last year of the war this country was almost the sole source of supply. After peace was declared the American imports decreased some relatively and the British proportion increased, but the United States still supplies the greater part and in 1920 furnished about three-fourths of the total.

COMPLETELY MANUFACTURED ARTICLES.

Machinery and engines.—In the class of completely manufactured articles machinery and engines are important items. In 1920 the value of these imports equaled 111,000,000 yen, as compared with an importation of 37,000,000 yen in 1913. In 1920 the value of the textile spinning machinery imported was about 20,600,000 yen. Prior to the war Great Britain supplied the greater part of these articles, but the United States and Germany also furnished appreciable amounts in about equal quantities. After the beginning of hostilities the German imports disappeared. The British portion decreased both relatively and absolutely and the United States' share grew in proportion until in 1917 and 1918 this country supplied much the greater part. After the close of hostilities the British imports increased, but the United States still continued to furnish the major portion.

Kerosene.—In 1913 there were 48,000,000 gallons of kerosene imported with a valuation of 11,000,000 yen, and in 1920 there were 34,000,000 gallons imported valued at 21,000,000 yen, a marked decrease in quantity, but an approximate doubling in value. The United States has consistently supplied from 70 to 90 per cent of this oil, and practically all of the remainder comes from the Dutch East Indies.

Woolen fabrics.—In 1920 the importation of woolen fabrics amounted to 31,000,000 yen as compared to 12,000,000 yen in 1913. Before the war Great Britain supplied about three-fourths of these fabrics with considerable quantities coming from Germany, but after the beginning of hostilities Great Britain became almost the sole source of supply and continues to be so at present.

Other articles.—The automobile imports increased from 1,000,000 yen in 1913 to 11,000,000 yen in 1920. Practically all of these come from the United States. Aniline dyes also constitute a rather im-

portant item in this group. In 1920 these imports were valued at 17,700,000 yen as compared with 7,700,000 yen in 1913. Before the war Germany supplied about 90 per cent of these imports. After the outbreak of hostilities the United States became the main source of supply, furnishing 72 per cent in 1919 and 66 per cent in 1920. However, during the first six months in 1921 the United States supplied only 17 per cent and Germany 65 per cent. Print paper was imported in 1919 to the value of 8,000,000 yen and 6,000,000 yen in 1920, as compared with 3,000,000 yen in 1913. The imports of cotton goods, which in 1913 amounted to 10,000,000 yen decreased during the war and became quite small, but in 1920 there was a sudden increase to 15,000,000 yen. The decrease in these imports was caused partly by the difficulty of securing these articles during the war and a consequent diminished consumption and partly by the fact that the Japanese have constantly increased their own production of these goods. Great Britain ordinarily supplies about 90 per cent of this trade, with a small part coming from the United States.

FOOD, DRINK, AND TOBACCO.

Rice.—Imports of the general classification of food, drink, and tobacco constitute from 10 to 15 per cent of the total imports. The largest single item in the group is the rice trade. In 1913 rice imports were valued at 48,400,000 yen and in 1919 at 162,000,000 yen and 1920 at only 18,000,000 yen. The quantity for these various years was respectively 9,000,000 piculs (1,202,600,000 pounds), 11,600,000 piculs (1,535,125,000 pounds), and 1,000,000 piculs (155,814,000 pounds). The average price per picul of imported rice had increased from 5.33 yen in 1913 to 15.33 in 1920, and then fell to 6.30 in 1921. French Indo-China is the main source of supply for the rice, the amount coming from that country constituting usually from one-half to three-fourths of the total. British India at times also supplies relatively large quantities, while varying amounts come from Siam.

Sugar.—Another important item in this group is sugar. In 1913 the imports of raw and refined sugar were valued at 37,000,000 yen and in 1920 at 60,000,000 yen, while the quantities were respectively 544,000,000 kin (719,000,000 pounds) and 297,000,000 kin (393,000,000 pounds). During this period the quantity decreased 83 per cent, while the value increased 63 per cent. Much the greater part of this sugar comes from the Dutch East Indies, although the Philippines furnish appreciable amounts.

Wheat and wheat flour.—The value of the wheat imported in 1913 amounted to 12,000,000 yen, in 1919 to 39,000,000 yen, and in 1920 to 29,000,000 yen. The quantity for these years was respectively 281,000,000 kin (6,205,000 bushels), 430,000,000 kin (9,476,000 bushels), and 287,000,000 kin (6,322,000 bushels). The price per kin had more than doubled in 1920 as compared with 1913. Before the war the United States supplied most of the wheat, but shortly after the outbreak of hostilities the American imports ceased and Australia became the main source of supply, with China furnishing varying but material amounts. In 1919 wheat-flour imports were valued at 8,000,000 yen and 1920 at 3,000,000 yen. Before the war the United States also furnished about 90 per cent of these imports, but

after 1916 the American product disappeared and China supplied the greater part, with lesser quantities coming from Australia.

EXPORTS BY CLASSES OF COMMODITIES.

The miscellaneous group includes such a variety of commodities and represents such a small proportion of the total imports that a description of that group is not necessary at this point.

EXPORTS.

EXPORTS BY CLASSES OF COMMODITIES.

The exports of the first group, food, drink, and tobacco, in the natural state, constitute about 4 or 5 per cent of the total exports. During the pre-war period 1907-1914 the exports of this class did not fluctuate greatly on a relative basis, although there was a considerable and rather constant increase absolutely. During the war years the total values increased greatly, but there were no violent variations in the percentage which this class forms of the total exports. After the conclusion of peace, however, there was a tendency to decline.

The second group, food, drink, and tobacco, partly or wholly prepared, is somewhat more important than the preceding, forming from 6 to 7 per cent of the total. During the pre-war period, 1907-1914, the proportion which this class formed of the total exports remained quite uniform and during the war there were no startling changes when measured by percentages, though absolute values increased greatly. After the close of hostilities there was a tendency for the exports in this class to decrease, both relatively and absolutely. It will be seen from the above figures that the exports of food products prior to 1918 equaled about 10 per cent of the total but show an appreciable decline since then.

The exports of raw materials have, as would be expected considering Japanese industrial growth, shown a general tendency to decrease. In 1907 this group represented about 10 per cent of the total export trade but has now declined to less than 7 per cent. The war had a depressing effect on trade in this group measured by percentages, but there has been some relative increase beginning with 1920.

On a percentage basis the exports of partly manufactured articles have not changed so very greatly until quite recently. Since 1907 the tendency has not, however, been entirely uniform. In 1912, 1913, and 1914 there was an appreciable increase as measured by percentages in the exports of this class, but since then the relative amounts have rather consistently decreased, and this decrease has been particularly noticeable in the past eighteen months. The absolute values, of course, increased greatly during the period of hostilities, but the war seems to have had a tendency to reduce the relative amount of the exports of this class.

The exports of completely manufactured articles have, as would also be expected, shown a tendency to increase. Prior to the war these exports amounted to about one-third of the total, but in 1920, the year of maximum exports, both relatively and absolutely, manufactured

articles made up approximately one-half of the total. The increase in this class of exports has been particularly marked since 1913.

It will be noted that the war did not cause any revolution in the relations between these various groups. The most important change is the different relations between the partly manufactured group and the completely manufactured group, the latter now taking first place. Certain tendencies which were apparent before the war, such as the gradual decline in the exports of raw material and the relative increase in the exports of manufactured articles, continued, and the war seems to have accelerated both of these tendencies.

EXPORTS BY PRINCIPAL ARTICLES.

MANUFACTURED ARTICLES.

Cotton piece goods.—At the present time, as mentioned above, the exports of the group designated as manufactured articles are the most important, and of this class the exports of cotton piece goods, taken as a whole, form the largest item. There has been a tremendous increase in this trade as measured in value. In 1913 the exports of these articles amounted to 34,000,000 yen and in 1920 to 335,000,000 yen, an increase of 897 per cent on a value basis, and cotton spinning has become one of Japan's most important industries. In 1920 the exports of cotton piece goods formed 17 per cent of the total exports. The greater part of these cotton goods is sent to China, that country usually receiving from one-half to three-fourths of the total, British India being the next largest customer. The Dutch East Indies and Kwantung Province absorb very appreciable amounts and other countries lesser quantities. The cotton piece goods trade with British India and the Dutch East Indies has increased enormously both relatively and absolutely since the beginning of the war.

Silk tissue.—The second largest item among the manufactured products is silk tissue. Prior to 1916 the silk fabric exports usually stood first. In 1919 the value of the silk fabrics exports was 162,000,000, and in 1920, 158,000,000 yen as compared with 39,000,000 yen in 1913. Formerly one class of silk tissue, habutae, made up about 90 per cent of these exports, but the proportion of this article has been decreasing and in 1920 formed but 57 per cent of the total. The value of habutae exported in 1919 was 101,000,000 yen and in 1920, 91,000,000 yen, and this formed the second largest individual item in the entire Japanese export trade. Habutae is sent to various countries. Prior to the war France was the best customer, with Great Britain and British India in the order named closely following. Since the beginning of the war there has been a shifting in the trade and the amounts sent to the United States have consistently increased. In 1913 the United States received 14 per cent of the total and in 1919, 46 per cent. Although the exports of habutae increased in value from 35,000,000 yen in 1913 to 101,000,000 yen in 1919, the increase in quantity was but 13 per cent as compared with an increase in value of 190 per cent.

Iron and steel manufactures.—The exports of manufactures of iron and steel, including machinery and engines, are also important.

In 1913 exports of this type were valued at 3,350,000 yen and in 1918, the peak year, at 48,000,000 yen. During the first six months of 1921 this trade decreased to 12,000,000 yen. These have a rather wide market, but the great bulk is sent to Oriental countries.

Matches.—The exports of matches ranked next in importance in this group. In 1919 these exports were valued at 33,000,000 yen and in 1920 at 28,000,000 yen compared with 12,000,000 yen in 1913. The exports in 1919 had increased 178 per cent in value and decreased 35 per cent in quantity as compared with 1913. The matches are sent to various countries. Before the war China was the largest market, but during the period of hostilities British India took first place, followed by Hongkong and China, while other countries received smaller amounts.

Paper.—Paper exports have been next in value. These are composed of a variety of types, print paper being the most important single item. In 1913 the paper exports amounted to 3,000,000 yen, in 1919 to 25,000,000 yen, and in 1920 to 23,000,000 yen. These articles are sent to widely scattered destinations, China being the largest market, absorbing from one-third to one-half of the total.

Toys.—Toy making was a prosperous industry in Japan during the war. In 1913 the exports of these articles amounted to 2,500,000 yen and in 1920 to 21,000,000 yen, an enormous increase during seven years. In the first six months of 1921 the exports were valued at 3,300,000 yen. These toys are sent to a large number of countries, but the United States received more than any other one, its share in 1920 being about one-half of the total amount.

Brushes.—The brush-making industry has also developed greatly in Japan during the war. In 1913 the exports of these articles were valued at 2,000,000 yen, in 1919, 10,000,000 yen, and in 1920, 9,000,000 yen. During the first six months of 1921 the exports were valued at 2,000,000 yen. The major part of these are toothbrushes but hair-brushes form about one-third of the total. The United States affords the largest market for these and in 1919 about 40 per cent of the total was sent to this country, while Great Britain, the next largest purchaser, received about 25 per cent.

PARTLY MANUFACTURED ARTICLES.

As previously mentioned, the partly manufactured group of exports formerly had first place in the Japanese trade, but has recently been superseded by the completely manufactured group.

Raw and waste silk.—The largest individual item in the entire Japanese export schedule, raw silk, is found in the partly manufactured class. In 1919, the year of maximum exports, this article formed 30 per cent of the total export trade of Japan. In 1913 the exports of raw silk were valued at 189,000,000 yen, in 1919 at 624,000,000 yen, and in 1920 at 383,000,000 yen. As compared with 1913, the value of the exports in 1919 had increased 230 per cent, the quantity had increased 41 per cent, and the unit value had increased 133 per cent. The United States is the principal market for this silk and in 1913 this country received 67 per cent of the total

exports of raw silk, in 1919, 96 per cent, and in the first six months of 1920, 99.9 per cent. Relatively small quantities are usually sent to France, and before the war Italy received appreciable amounts, but since 1915 Italian imports have been negligible. In addition to the raw silk, large quantities of waste silk are exported. The exports of this article in 1918 amounted to 27,000,000 yen, and in 1920 to 19,000,000 yen as compared with 10,000,000 yen in 1913. These exports are rather widely distributed, the greater portion going to France, that country absorbing about one-half to two-thirds of the total. Italy also receives appreciable amounts though the exports to that country have decreased relatively since 1918. In 1913, 10 per cent of the total amount was sent to the United States, but this proportion has been increasing and in 1918, 43 per cent was marketed in this country, and in 1919, 28 per cent.

Cotton yarn.—The exports of cotton yarn in 1918, the maximum year for this item, were valued at 158,000,000 yen and in 1920 at 152,000,000 yen. The exports in 1913 were valued at 71,000,000 yen. In 1918, as compared with 1913, the value of these exports had increased 123 per cent, while the quantity had decreased. China is and has been the principal market for these products, but during and since the war China's proportion has been decreasing and the amounts sent to Hongkong and British India have been increasing.

Copper.—Copper in slabs and ingots is another item in this group. The exports of this commodity reached their maximum in 1917, when they were valued at 87,000,000 yen. After that year the values decreased and fell to 20,000,000 yen in 1919 and to 5,000,000 yen in 1920. In 1913, 70,000,000 kin (92,960,000 pounds) were exported, valued at 28,000,000 yen. The quantities exported in 1917 were 120,000,000 kin (159,158,000 pounds) and in 1920, 8,700,000 kin (11,552,000 pounds). This decrease in exportation was coincident with an enormous increase in imports of copper in this form.

Other articles.—Exports of braids for hats increased from 16,000,000 yen in 1913 to 22,000,000 yen in 1920. The United States has been the main purchaser of this article, as from 40 to 50 per cent comes to this country. Recently the proportion sent to Great Britain has been increasing, and now that country receives nearly as much as does the United States. Camphor, which was exported to the value of 9,000,000 yen in 1919 and 5,000,000 yen in 1920, is also important. The United States is the main market for this product.

FOOD, DRINK, AND TOBACCO.

Beans and peas.—In the group of food products, beans and peas taken collectively form the largest item. Though officially classified as food products, some of the varieties of beans are not properly food products but are valued primarily for their oil.

Sugar.—Sugar is the most important individual export in this group. As previously mentioned, the Japanese import large quantities of crude sugar and export the refined product. The value of sugar exports in 1920 was 31,000,000 yen as compared with 16,000,000 yen in 1913. The quantities for the two years were, respectively, 100,500,000 kin (132,996,000 pounds) and 169,000,000 kin (223,240,000 pounds), an increase in value of 95 per cent and decrease in quantity

of 40 per cent. China and Kwantung Province received practically all of this sugar, though there has been some shifting of markets, especially in the abnormal sugar year of 1920.

Tea.—Tea is the second most important individual item in this group. In 1913 the value of this export was 10,000,000 yen and the quantity exported about 26,000,000 kin (33,760,000 pounds). In 1918, the year of maximum value, the value was 23,000,000 yen and the quantity 39,000,000 kin (51,000,000 pounds); in 1920, 17,000,000 yen and 20,000,000 kin (26,228,000 pounds). In comparing 1918 with 1913 it will be seen that the quantity increased 51 per cent while the value increased 129 per cent. Practically all this tea is marketed in the United States and Canada, the proportion of the first being from 80 to 85 per cent and of the latter from 10 to 15 per cent.

Beer and saké.—Considerable quantities of beer and saké are also exported. The exports of these commodities amounted to 12,000,000 yen in 1919 and 10,000,000 yen in 1920. Practically all of the saké goes to China, while the beer is sent principally to British India, the Dutch East Indies, and the Straits Settlements.

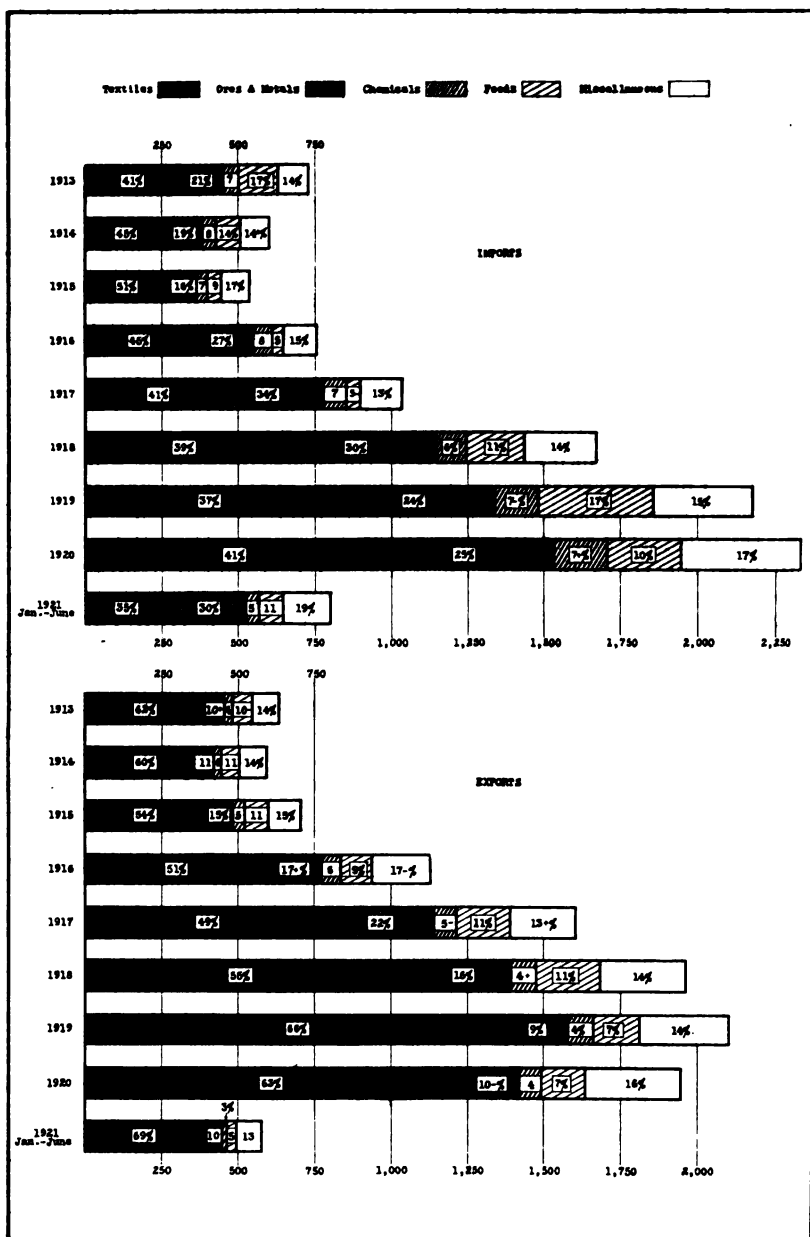
RAW MATERIALS.

Coal.—The raw material group is the least important among the exports. The largest item in this class is coal. In 1920, 2,000,000 tons of coal were exported, valued at 45,000,000 yen as compared with 3,800,000 tons, valued at 24,000,000 yen, in 1913. It will be seen by comparing the years 1913 and 1920 that the quantity of coal exported in the latter year had decreased 44 per cent, while the value had increased 90 per cent. About half of this coal is exported to China and Kwantung, with the Straits Settlements and the Philippines being the next larger purchasers.

Wood.—Wood exports form another item in this group. In 1920 these products were exported to the value of 29,000,000 yen, as compared with 10,000,000 yen in 1913. China is the largest market for this commodity, but appreciable amounts are also sent to other rather widely distributed destinations.

CHART VI.—Relation of chief classes of imports and exports to total imports and exports.

[In millions of yen.]



III.

TRADE BY GROUPS OF COMMODITIES.

The Japanese official trade reports divide the imports into seventeen, and the exports into sixteen, general groups or classes, the extra group in the import trade consisting of plants and animals of which no mention is made in the export statistics. The plant and animal group is No. I in the import returns. The remaining groups Nos. II to XVII of the import statistics correspond respectively to groups Nos. I to XVI in the export statistics.

Percentage of total imports represented by specified groups of merchandise, 1913-1921.

Group.	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
Group I.—Plants and animals	0.07	0.02	0.04	0.01	0.01	0.01	0.03	0.04	0.08
Group II.—Grains, flours, starches, and seeds	10.86	9.02	4.66	2.59	2.67	8.47	12.44	5.12	4.30
Group III.—Beverages, comestibles, and tobacco (sugar and confectionery, alcoholic liquors, beverages and comestibles, tobacco)	6.09	4.85	3.78	2.47	1.82	2.96	4.50	5.02	6.19
Group IV.—Skins, hair, bones, horns, teeth, tusks, shells, and manufactures thereof	1.23	1.37	2.37	2.44	1.60	1.71	1.66	1.92	1.58
Group V.—Oils, fats, waxes, and manufactures thereof	2.77	2.87	3.24	2.30	1.88	2.00	2.28	2.59	3.29
Group VI.—Drugs, chemicals, medicines, compounds, or preparations thereof and explosives	5.43	6.27	5.75	7.33	6.27	4.67	5.64	6.03	3.42
Group VII.—Dyes, pigments, coatings, and filling matters	1.56	1.36	1.38	1.12	.90	1.32	1.11	1.47	1.65
Group VIII.—Yarns, threads, cordages, and materials thereof	37.21	42.01	49.35	43.18	39.67	37.02	35.97	38.18	32.00
Group IX.—Tissues and manufactures thereof (tissues of cotton, tissues of flax, hemp, or jute, tissues of wool, other)	3.59	3.04	1.98	1.70	1.42	1.48	1.26	2.41	2.58
Group X.—Clothing and accessories thereof .....	.18	.15	.07	.09	.09	.08	.11	.13	.17
Group XI.—Paper, paper manufactures, books and pictures	1.79	1.75	1.84	2.15	.81	1.06	1.48	1.55	1.31
Group XII.—Minerals and manufactures thereof	1.94	2.58	1.75	1.37	2.12	1.85	1.76	2.11	1.78
Group XIII.—Potteries, glass, and glass manufactures .....	.55	.49	.24	.34	.30	.16	.20	.24	.45
Group XIV.—Ores and metals	9.96	9.03	11.02	19.94	25.53	21.50	14.85	14.41	14.96
Group XV.—Metal manufactures	2.10	1.42	.77	1.41	1.75	2.00	2.02	2.01	2.84
Group XVI.—Clocks, watches, scientific instruments, firearms, vehicles, vessels, and machinery	7.00	5.78	2.77	4.14	4.55	4.71	5.53	6.40	11.01
Group XVII.—Miscellaneous articles	7.10	7.24	8.03	6.55	7.47	8.00	7.98	9.40	11.26
Parcel post .....	.39	.50	.41	.63	.55	.46	.45	.51	.53
Traveling effects .....	.06	.05	.04	.05	.04	.04	.04	.05	.10
Total foreign produce	99.88	99.80	99.49	99.81	99.45	99.50	99.31	99.59	99.40
Reimports .....	.12	.20	.51	.19	.55	.50	.69	.41	.60
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Percentage of total exports represented by specified groups of merchandise.
1913-1921.

Group.	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
Group I.—Grains, starches, and seeds.	1.09	1.53	3.45	3.20	4.97	5.45	2.51	1.18	0.67
Group II.—Beverages, comestibles, and tobacco (tea, marine products, sugar and confectionery, alcoholic liquors, other beverages and comestibles, tobacco).....	8.63	8.90	7.64	6.05	5.70	5.15	4.56	6.04	4.63
Group III.—Skins, hair, horns, tusks, etc., and manufactures thereof.....	.66	.54	.85	.51	.47	.42	.33	.33	.30
Group IV.—Oils, fats, waxes, and manufactures thereof.....	1.68	1.42	1.43	1.92	1.81	2.33	1.69	1.72	.60
Group V.—Drugs, chemicals, medicines, and explosives.....	3.81	4.03	4.34	5.04	4.11	3.75	3.48	3.54	2.68
Group VI.—Dyes, pigments, coatings, and filling matters.....	.08	.06	.29	.50	.41	.68	.44	.45	.45
Group VII.—Yarns, threads, cordages, twines, and materials thereof.	48.73	42.45	32.72	32.76	31.31	29.98	37.56	30.36	36.57
Group VIII.—Tissues and manufactures thereof (silk tissues, cotton tissues, other tissues, manufactures of tissues).....	13.91	12.74	16.08	12.78	14.08	20.83	23.95	28.36	29.40
Group IX.—Clothing and accessories thereof.....	4.10	4.04	5.16	5.84	4.03	4.23	4.86	4.54	2.61
Group X.—Paper and paper manufactures.....	.86	.80	.90	1.27	1.38	1.91	1.74	1.76	2.20
Group XI.—Minerals and manufactures thereof.....	3.95	4.35	3.13	2.16	1.96	2.11	2.23	2.95	4.16
Group XII.—Pottery, glass, and glass manufactures.....	1.59	1.51	1.82	1.99	1.81	1.84	2.02	2.81	2.52
Group XIII.—Ores and metals.....	4.98	5.35	9.14	10.68	10.72	5.56	2.82	1.94	1.84
Group XIV.—Metal manufactures.....	.57	.59	1.10	1.47	1.83	2.47	2.06	1.97	1.25
Group XV.—Clocks, scientific instruments, vessels, and machinery.....	1.02	.88	1.42	3.10	7.35	5.64	1.77	2.57	2.33
Group XVI.—Miscellaneous.....	8.25	8.04	7.54	6.69	4.92	4.30	5.32	6.77	4.74
Parcel post.....	.73	1.02	1.82	3.07	1.99	1.75	1.09	1.05	1.46
Total Japanese produce.....	99.54	99.27	98.83	99.03	98.85	98.42	96.43	98.34	98.61
Reexports.....	.46	.73	1.17	.97	1.15	1.58	1.57	1.66	1.39
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

PLANTS AND ANIMALS.

(Group I of imports.)

When compared with the total Japanese import trade, the value of imports of plants and animals is of very little importance. In the year 1913 imports of this group were valued at 538,000 yen, and in 1920, the peak year, at 1,001,000 yen, an increase of over 85 per cent. Horses are the most important individual item in this schedule. The imports of horses in 1913 were valued at 457,000 yen, but this had decreased in 1919 to 304,000 yen and in 1920 to approximately 275,000 yen. The first six months of 1921, however, show a distinct increase when the imports, valued at 520,000 yen, exceeded those of any year since 1913. The horses are secured chiefly from Great Britain, Australia, China, and the United States. Imports of bulls, oxen, and cows increased from 51,000 yen in 1913 to 202,000 yen in the peak year 1919, followed later by a radical decrease in the first six months of 1921. Practically no cattle for slaughtering are imported as the main diet of the Japanese people consists of fish and rice. The foreign population is chiefly dependent on imports

of frozen meat from Australia and China. The balance of the imports of this group, 529,000 yen in 1920, was composed of miscellaneous animals and plants. The total value of imports for the first six months of 1921 indicates that this year will mark the peak for the group and exceed the relatively high imports of the preceding year.

Imports of horses, cattle, and plants (live), 1913-1921.

Year.	Total.	Horses.	Bulls, oxen, and cows.	All other.
	Yen.	Yen.	Yen.	Yen.
1913.....	537,860	457,357	51,313	29,190
1914.....	99,609	80,746	285	18,578
1915.....	236,283	214,359	1,430	20,444
1916.....	98,076	20,967	6,222	70,887
1917.....	99,087	9,788	26,759	62,540
1918.....	197,807	22,258	8,841	166,308
1919.....	748,095	303,794	201,694	242,307
1920.....	1,001,014	274,898	196,849	529,267
1921 (January-June).....	620,252	519,835	3,370	97,047

GRAINS, FLOUR, STARCHES, AND SEEDS.¹

(Group II of imports and Group I of exports.)

For a general review of the trade in agricultural products and provisions, the above group may be considered in conjunction with the following one of "Beverages, comestibles, and tobacco." These two groups formerly occupied a much more prominent place in Japan's foreign commerce, and especially in the import trade, than they do at the present time. In 1913 they accounted for 17 per cent of the imports and in 1920, 10 per cent. The domestic production of certain of the foodstuffs comprised within these groups is not normally sufficient to meet the needs of the Japanese people. However, under the stimulus of war, the agriculturists increased their production considerably and the experience of Japan during the period of hostilities would seem to indicate that the Empire can, at least for a limited time, under pressure, render itself self-sufficient for foodstuffs. In 1916, 1917, and 1918 there was even a small surplus for export. In addition to increased production, curtailed consumption and withdrawal of reserves were factors in creating this surplus. However, it should be noted that in the last two years Japan has again become a food importing country. It should be noted too that while the aggregate values have increased, the volume of trade in foodstuffs has generally decreased during the period 1913-1920. The commercial movement of food supplies has also been affected by the general trade depression during the past few years. The highest unit values were reached in the latter part of 1919 and the first half of 1920 and have declined since that time.

The following table presents statistics regarding Japan's trade in grains, flours, starches, and seeds:

¹ Certain seeds valued primarily for their oil content are officially classified in this group but for logical reasons are discussed under group V, oils, fats, waxes, etc.

Trade in grains, flour, starches, and seeds, 1913-1921.

[Values in thousands of yen.]

Year.	Total im- port trade.	Imports.		Total ex- port trade.	Exports.	
		Value.	Percent of total import trade.		Value.	Per cent of total export trade.
Calendar year:						
1913.....	729,432	79,226	10.86	632,460	6,892	1.09
1914.....	595,736	53,717	9.02	591,101	9,017	1.53
1915.....	532,450	24,803	4.66	708,307	24,467	3.45
1916.....	756,428	19,580	2.59	1,127,468	36,135	3.20
1917.....	1,035,811	27,617	2.67	1,603,006	79,716	4.97
1918.....	1,668,144	141,315	8.47	1,982,101	106,865	5.45
1919.....	2,173,460	270,452	12.44	2,098,873	52,754	2.51
1920.....	2,336,175	119,593	5.12	1,948,395	23,054	1.15
1921, January-June	798,889	34,373	4.30	573,853	3,866	.67
Year ending June 30:						
1919.....	1,877,632	121,908	6.49	1,892,538	68,910	3.64
1920.....	2,471,495	233,421	9.44	3,534,380	42,994	1.22
1921.....	1,517,659	66,222	4.36	2,102,181	11,138	.53

Imports of grains, flours, starches, and seeds declined steadily from 1913 to their lowest figure in 1916 when they were valued at less than 20,000,000 yen and represented only 2.59 per cent of Japan's total imports. From that time they increased, reaching a maximum, as measured in value, in 1919, when they were valued at over 270,000,000 yen or more than 12 per cent of the total Japanese imports. More recently the value of these imports has again declined.

In recent years imports and exports have moved in opposite directions. The growth in exports is noteworthy when the land available for cultivation and the needs of Japan's own population are considered. From a trade valued at 6,892,000 yen in 1913, grain and similar exports grew to 106,865,000 yen in 1918, an increase in percentage of the total export trade from 1.09 to 5.45 per cent. That this growth in exports is not due directly at least to reexportation, is shown by the fact that during the war imports declined at the same time that exports increased. Rather it would seem, as previously mentioned, that the increased exports are the result of intensified production and a drain on any food reserves which Japan may have had, and, to some extent, to curtailed consumption. It should be noted, however, that, following the relatively large exportation of foodstuffs included in this group in 1918, imports in 1919 increased 91 per cent and exports declined 51 per cent as compared with the preceding year. Since then both imports and exports have been falling and in the first half of 1921 food exports became negligible when compared with the total export trade.

A study of the trade by individual commodities follows.

Rice.—In 1913 rice, the principal food crop of Japan, comprised 61 per cent of the value of the imports of articles included in this group. Since 1913 both the aggregate and per capita consumption of rice show a general tendency to increase, but this larger demand has been chiefly met by an expansion in the domestic production. The normal net import balance is between 20,000,000 and 25,000,000 bushels, or about 8 per cent of the consumption. In 1919 (the latest year for which data are available) the area in rice was over 7,497,000

acres and the harvest 311,000,000 bushels.¹ Difficulties of transportation, Oriental crop shortages, and the increased demand from Europe during the war all contributed to enhanced prices and expanded production.

There is a somewhat distinct trade in the different kinds of rice. While more than half of Japan's exports of rice consist of the cleaned product the imports are almost wholly of cheaper rice and paddy.

Rice production, trade, and consumption, 1913-1920.

[In thousands of bushels.]

Year	Production. ¹	Imports. ¹	Exports. ¹	Domestic consumption.	Population (official estimates).	Per capita consumption.
						<i>Bushels.</i>
1913.....	257,257	26,942	1,440	282,759	53,363,000	5.29
1914.....	291,816	14,984	1,840	304,960	54,216,000	5.63
1915.....	296,278	3,389	1,713	287,954	55,084,000	5.23
1916.....	299,598	2,280	1,878	299,579	55,965,000	5.35
1917.....	273,265	4,181	5,425	272,021	56,861,000	4.78
1918.....	280,005	34,079	1,848	312,236	57,071,938	5.47
1919.....	311,327	34,044	665	344,706	56,516,538	6.09
1920.....	325,066	3,455	853	327,668	53,961,140	5.85

¹ Production and exports are in rough, uncleaned and cleaned rice. Imports consist of both rough and uncleaned rice. Japanese statistics do not distinguish among the various classes.

² Actual census.

The price of rice has risen sharply since 1917. Using the 1912 cost as a price index figure of 100, in 1913 the cost was 102; in 1917, 95; in 1918, 156; and in 1919, 219. A price decline began in 1920. The rise in price was partly due to excessive speculation, according to official statements. Because of this speculation and the rising prices the Japanese Government in April, 1918, assumed supervision of the trade. Speculation in rice futures was closely restricted and only four designated firms were permitted to import. The sale price of the imported rice was fixed and where the import price was higher than the sale price the Government refunded the difference to the importer. These measures apparently did not fully meet the situation, for during the latter part of the year there occurred serious food riots in the larger cities. A law was then enacted for the purpose of stabilizing prices by controlling purchases and sales. The Government paid for its purchases in one-year notes with interest at 7 per cent, but since farmers preferred to dispose of their rice to merchants for cash, slightly below Government prices, the law was not as successful as expected.

¹ Over the past 25 years rice production has tended to increase. In the five years, 1914-1918, the largest crops in Japan's history were produced.

The following table shows, by countries, the Japanese imports and exports of rice in quantities and values:

Imports of rice, 1913-1921.

[Values in thousands of yen.]

Imported from—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (Jan.-June).
China	845	531	170	154	120	968	283	502	77
British India	20,031	7,466	648	39	65	33,067	1,013	312	1,734
French Indo-China	22,268	12,821	1,434	344	2,333	50,004	116,314	14,438	3,465
Siam	5,206	3,863	2,563	2,631	3,988	4,983	29,367	1,550	2,351
Other countries	122	143	71	20	57	754	15,094	1,257	28
Total	48,472	24,824	4,886	3,088	6,513	89,756	162,071	18,059	7,653
Total quantity, in thousands of piculs	9,092	5,057	1,114	773	1,411	11,618	11,606	1,178	1,215
Average value, in yen per picul	5.33	4.91	4.27	3.99	4.62	7.72	13.96	15.33	6.30
Per cent imports of rice are of total import trade	6.65	4.17	.92	.41	.63	5.38	7.45	.77	.96

PERCENTAGE DISTRIBUTION.

China	1.74	2.14	3.48	4.99	1.85	1.08	0.17	2.78	1.00
British India	41.32	30.07	13.26	1.25	.99	36.84	.62	1.73	22.65
French Indo-China	45.94	51.65	29.35	11.13	35.82	55.71	71.78	79.95	45.27
Siam	10.74	15.56	52.46	81.96	60.47	5.58	18.12	8.58	30.72
Other countries .....	.26	.58	1.45	.67	.87	.84	9.31	6.96	.36
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Exports of rice, 1913-1921.

[Values in thousands of yen.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (Jan.-June).
Kwantung	119	62	97	118	161	177	213	.....	.....
Asiatic Russia	50	32	48	837	505	88	165	.....	.....
Great Britain	1	228	2,491	3,491	4,220	.....	.....	.....	.....
France .....	.....	.....	244	111	942	.....	.....	.....	.....
United States	1,400	1,549	2,803	2,122	3,173	1,681	477	250	118
Canada	486	638	880	1,123	1,079	1,052	357	109	252
Australia	50	47	137	164	104	.....	.....	.....	.....
Hawaii	2,215	2,330	2,351	2,626	2,651	4,168	3,047	4,927	1,137
Other countries	52	88	626	605	1,828	1,155	69	617	304
Total	4,373	4,974	9,677	11,197	14,663	8,321	4,328	5,903	1,811
Total quantity, in thousands of piculs	486	621	1,578	1,634	1,831	630	227	291	142
Average value, yen per picul	9.00	8.00	6.13	6.85	8.01	13.21	19.07	20.29	12.75
Per cent exports of rice are of total export trade .....	.69	.84	1.37	.99	.91	.42	.21	.30	.32

Exports of rice, 1913-1921—Continued.

PERCENTAGE DISTRIBUTION.

Exported to —	1913	1914	1915	1916	1917	1918	1919	1920	1921 (Jan- uary- June).
Kwantung.....	2.72	1.25	1.00	1.06	1.10	2.13	4.02	.....	.....
Asiatic Russia.....	1.14	.64	.50	7.48	3.44	1.06	3.51	.....	.....
Great Britain.....	.02	4.58	25.74	31.18	28.78	.....	.....	.....	.....
France.....	.....	.....	2.52	.99	6.42	.....	.....	.....	.....
United States.....	32.01	31.14	28.97	18.95	21.64	20.20	11.02	4.24	6.52
Canada.....	11.11	12.83	8.09	10.08	7.85	12.64	8.25	1.85	13.91
Australia.....	1.14	.95	1.41	1.46	.71	.....	.....	.....	.....
Hawaii.....	50.65	46.84	24.29	23.45	18.08	50.09	70.40	83.46	62.78
Other countries.....	1.20	1.77	8.48	6.41	12.47	13.88	1.60	10.45	16.79
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

French Indo-China, British India, and Siam have usually supplied over 95 per cent of the rice imports, but the proportion which each furnishes fluctuates violently from year to year. In the case of the exports, however, changes can be noted in the countries of destination. In 1913 Hawaii, continental United States, Canada, and Kwantung were the important purchasers of Japanese rice. With the beginning of the war Great Britain, Australia, France, and Asiatic Russia entered the market, and in 1917, the year of maximum exports, these countries took more than 39 per cent of the total. In 1913, 0.02 per cent of the rice exports were sent to Great Britain, and in 1917, 28 per cent; since the latter year this trade has disappeared. Exports to Hawaii have always been heavy, largely due to the preference of the Japanese population there for brown rice, and in 1918 Hawaii regained her position as the largest purchaser of Japanese rice, a position still held in June, 1921. The United States until 1919 was among the larger consumers of rice from Japan, buying usually over 30 per cent of the exports. In that year, however, the United States purchased only 11 per cent of the total rice exports, and in 1921 only 6.5 per cent.

Wheat.—Until 1916 the war had brought about no appreciable change in the domestic production of wheat. The elimination of American imports and the greatly increased price served to stimulate the production of wheat at the expense of the other grain crops, particularly barley, and in 1917 both the acreage and the harvests were the largest Japan had ever known. In the year mentioned, 1,392,000 acres were sown with wheat, producing nearly 35,000,000 bushels, an average of 25 bushels per acre. The yield of wheat per acre is much higher in Japan than in the United States, where it is about 15 bushels; it is higher even than the average yield of the Eastern States of this country, with which the Japanese crop is more comparable. As compared with 1913, wheat acreage had increased 18 per cent in 1917, and production was 30 per cent greater. Since 1917 there has been some reaction, and in 1920 the acreage was 13 per cent and the production 10 per cent larger than in 1913.

Japan exports practically no wheat, and her flour exports usually are quite small. Before the war about 5,000,000 bushels of wheat were imported annually, and prior to 1915 the great bulk came from the United States. Subsequently, because of the insistence of the European war market and the transportation situation, shipments from the United States virtually ceased and were replaced by Australian and Chinese supplies. The American trade has not revived since the conclusion of peace. Importing wheat from China is largely a war development, as formerly almost none of these imports originated in that country. Prior to 1913 Australia furnished appreciable quantities, but since that year the Australian supply has fluctuated violently. As in the case of most other food products, wheat imports increased in a marked degree beginning with 1918, but have since returned to an amount approximately equal to that of 1913. A study of the wheat import statistics over a longer term of years, however, shows a general upward tendency.

Acres and production of wheat, 1913-1921.

Year.	Acres.	Bushels.	Average yield per acre.
			<i>Bushels.</i>
1913.....	1,184,475	26,756,741	22.58
1914.....	1,172,759	22,975,285	19.59
1915.....	1,226,855	26,772,723	21.82
1916.....	1,303,460	30,137,314	23.12
1917.....	1,392,239	34,738,583	24.95
1918.....	1,389,448	32,922,700	23.70
1919.....	1,343,843	32,561,176	24.23
1920.....	1,335,000	29,510,226	22.11
1921 (estimated).....		28,580,864	

¹ Yearbook, United States Department of Agriculture, 1920.

Imports of wheat, 1913-1921.

VALUES.

[In thousands of yen.]

Year.	Total.	From United States.		From Australia.		From China.		From Kwantung.	
		Value	Per cent of total.	Value.	Per cent of total.	Value.	Per cent of total.	Value.	Per cent of total.
1913.....	12,351	9,492	76.8	2,204	17.84	7	.....	2	.....
1914.....	8,489	5,573	65.8	2,405	28.33	144	1.69	59	0.69
1915.....	1,639	224	13.6	94	5.73	953	58.14	369	22.51
1916.....	1,356	19	1.4	.....	.....	1,119	82.52	186	13.71
1917.....	666	.....	.....	.....	.....	560	84.08	95	14.26
1918.....	9,941	.....	.....	4,621	46.48	2,377	23.91	2,939	29.55
1919.....	38,530	.....	.....	16,864	43.77	13,216	34.30	8,287	21.50
1920 ¹	28,505	.....	.....	.....	.....	.....	.....	.....	.....
1921 (Jan.-June) ¹	9,063	.....	.....	.....	.....	.....	.....	.....	.....

¹ Detailed figures for 1920 and 1921 not available.

Imports of wheat, 1913-1921—Continued.

QUANTITIES.

[In thousands of kin.]

Year.	Total.	From United States.	From Australia.	From China.	From Kwantung.	Average value yen per kin.
1913.....	281,474	218,955	48,163	180	32	0.0438
1914.....	196,210	129,913	54,811	3,377	1,333	.0432
1915.....	36,757	5,588	2,079	21,414	7,666	.0446
1916.....	28,964	460		23,770	3,926	.0468
1917.....	12,727			10,714	1,769	.0523
1918.....	115,318		52,108	28,090	35,075	.0862
1919.....	429,883		189,320	147,763	91,011	.0896
1920 ¹	286,806					.0994
1921 (January-June) ¹	140,615					.0644

¹ Detailed figures for 1920 and 1921 not available.

Wheat flour.—Prior to the outbreak of the war Japan imported a small amount of wheat flour, almost entirely from the United States. During the war the small imports still further decreased until they were valued at only 59,000 yen in 1917. In 1918 China exported 6,833,000 kin (46,113 barrels) to Japan and took the place formerly held by United States as the chief source of supply.

Imports of wheat flour, 1916-1919.

[Quantities in thousands of kin.]

Imported from—	1916	1917	1918	1919	Imported from—	1916	1917	1918	1919
United States....	1,187	72		173	China.....			6,833	59,057
Canada.....	65				Kwantung.....			1,270	75
Australia.....	157	467	2,071	5,512	Argentina.....				162

Imports of wheat flour from the United States, 1913-1920.

[Quantities in thousands of kin; values in thousands of yen.]

Year.	Total.		From United States.		Year.	Total.		From United States.	
	Quantity.	Value.	Value.	Per cent of total.		Quantity.	Value.	Value.	Per cent of total.
1913.....	28,614	1,780	1,601	89.9	1917.....	584	59	7	11.2
1914.....	20,110	1,264	1,139	90.1	1918.....	10,180	1,286		
1915.....	3,032	194	174	89.6	1919.....	65,018	7,758	21	
1916.....	1,431	95	77	81.1	1920.....	23,292	3,353	(1)	(1)

¹ Data not available.

Exports of wheat flour, 1914-1919.

Exported to—	1914		1916	
	Kin.	Yen.	Kin.	Yen.
Great Britain.....	.....	.....	8,354,071	615,724
British India.....	995	55	140,048	10,256
China.....	933,735	43,484	1,231,153	83,492
Kwantung.....	8,940	488	3,027,058	230,906
Hongkong.....	2,885	190	5,277,812	391,967
Straits Settlements.....	307,280	17,967	8,779,805	653,429
Dutch East Indies.....	446	28	2,947,086	207,980
Philippine Islands.....	.....	.....	861,972	62,549
Other countries.....	1,476,363	45,634	287,972	19,824
Total.....	2,729,704	106,686	31,544,163	2,266,107

Exported to—	1917		1918		1919 ¹	
	Kin.	Yen.	Kin.	Yen.	Kin.	Yen.
Great Britain.....	23,688,279	1,965,548	1,662,600	250,000	8,500	1,000
British India.....	23,596	1,620	.....	.....	16,800	3,009
China.....	21,539,176	1,730,586	456,100	61,000	.....	.....
Kwantung.....	21,847,246	1,877,392	3,842,100	465,000	.....	.....
Hongkong.....	45,399,151	3,992,919	2,835,400	333,000	.....	.....
Straits Settlements.....	10,282,299	841,101	.....	.....	.....	.....
Dutch East Indies.....	8,162,521	670,539	407,500	33,000	.....	.....
Philippine Islands.....	17,237,147	1,396,861	453,000	46,000	.....	.....
African countries.....	1,759,400	136,000	84,548,500	10,542,000	.....	.....
Other countries.....	12,890,700	1,015,828	259,100	36,000	36,900	5,000
Total.....	*162,799,515	*13,648,394	94,465,300	11,765,000	62,200	9,000

¹ Latest figures available, in detail, are for 1919. In 1920 the totals were 3,084,038 kin and 361,734 yen, and for 1921 (January-June) 1,259,500 kin and 142,466 yen.

* In 1917 "Other countries" included Italy with 12,107,507 kin, valued at 951,755 yen.

Increase—	Per cent.
In quantity, 1918, compared with 1914.....	3.361
In value, 1918, compared with 1914.....	11.023
In quantity, 1920, compared with 1914.....	13
In value, 1920, compared with 1914.....	239

Before the war Japan used the small imports of American flour to blend with the coarse Manchurian product and with the domestic article. The Japanese do not eat much bread, partly as a matter of habit and taste and partly because rice is cheaper, but they are learning, however, to use wheat products to an increasing extent.

Japan has increased her flour milling capacity greatly, the limited number of modern mills doubling or trebling their capacity during the war. Exports have increased according to Japanese official statistics from 2,700,000 kin (18,760 barrels) in 1913 to a maximum in 1917 of 162,800,000 kin (1,098,600 barrels). During the height of this trade, flour was exported to China, Kwantung, and the Philippine Islands, in appreciable quantities, and in 1917, 160,000 barrels were sent to Great Britain, and 81,700 barrels to Italy. Since 1918 the trade has declined rapidly and it seems to have been a war product. While the absolute amount of these exports is not large as compared with the United States trade, yet the percentage increase during the war was remarkable. In 1918 exports had increased 3,360 per cent in quantity and 11,000 per cent in value as compared with 1914. In 1920, as compared with 1914, the quantity increase was 13 per cent and the value increase was 239 per cent.

Barley.—Rice excepted, more barley is grown in Japan than any other grain. The exports of this grain have been insignificant and

were first separately enumerated in the trade statistics of 1917. In that year 3,671,800 kin, valued at 158,800 yen (101,993 bushels, valued at approximately \$79,000), were exported and since that time the trade has practically disappeared. Imports of barley into Japan are also insignificant. The production statistics are as follows:

Acreage and production of barley, 1913-1921.

Year.	Acres	Bushels.	Year.	Acres.	Bushels.
1913 ¹	1,529,111	54,480,329	1918 ²	1,298,608	39,812,064
1914.....	1,509,982	48,795,137	1919.....	1,308,983	50,345,743
1915.....	1,459,869	52,485,255	1920.....		41,987,169
1916.....	1,394,770	48,935,312	1921 (estimated) ³		46,742,128
1917.....	1,314,981	46,944,481			

¹ Figures for 1913-1917, inclusive, are taken from the Thirty-second and Thirty-third Statistical Reports of the Department of Agriculture and Commerce of Japan. The figures are given in koku and have been converted into United States bushels at 1 koku=5.119 bushels.

² Figures for 1918, 1919, and 1920 are from United States Commerce Reports for Mar. 5, 1921, p. 1271.

³ Figures for 1921 are from "Japanese Advertiser," July 15, 1921.

The production of barley in Japan during the period 1913-1920 has fallen somewhat. In view, therefore, of the small imports, it seems that the Japanese consumption of barley has declined since 1913. It is probable that the reduction in the barley area was caused by a diversion to the production of wheat, rice, and potatoes. Wheat and rice acreage, as previously indicated, increased moderately on a percentage basis. Potato acreage increased 90 per cent; and in actual area this was approximately 335,000 acres in 1920.

Oats, buckwheat, and rye.—Japan's trade in these commodities is so sporadic and has fallen to such negligible quantities and values that a detailed treatment of them is unnecessary. In 1917 oats exports were valued at only 17,000 yen, and none were recorded in 1918. In 1919 their value was 1,000 yen and in 1920, 31,000 yen.

Beans and peas.—Beans and peas occupy an important place in both the import and export trade. Of the imports of beans and peas, soya beans average well over 65 per cent in quantity.

The extensive international trade in soya beans is largely due to their content of a semidrying oil, extensively used for soaps, varnishes, and paints, and to some extent for butter and lard substitutes. The by-product, oil cake, is a valuable feedstuff and fertilizer. In the United States the beans are grown almost exclusively for forage, while large quantities of soya-bean oil are imported. In Japan these beans are an important item of food. The annual production of soya beans in Japan from 1909 to 1918 averaged over 16,000,000 bushels and in addition there are large imports, mainly from China and Kwantung.

Imports of beans and peas, 1913-1921.

[Quantities in thousands of piculs; values in thousands of yen.]

Year.	Total quantity.	Total value.	Per cent of total import trade.	Percentage distribution.			
				China.	Kwantung.	Asiatic Russia.	Other countries
1913.....	2,564	10,393	1.42	50.11	40.53	3.23	6.13
1914.....	3,270	13,321	2.24	39.81	52.51	2.29	5.39
1915.....	2,609	9,290	1.74	58.11	35.52	5.64	1.73
1916.....	1,820	7,109	.94	65.12	28.57	5.03	1.28
1917.....	2,072	9,507	.92	58.94	34.54	4.64	1.88
1918.....	3,289	20,396	1.22	52.24	42.24	2.00	2.52
1919.....	4,435	33,803	1.62	43.65	55.39	.11	.85
1920.....	4,764	47,654	2.04	24.37	75.06	.....	.57
1921 (January-June).....	1,629	8,417	1.05	49.38	44.74	.84	5.34

Imports of soya beans, 1913-1920.

[Quantities in thousands of piculs.]

Imported from—	1913	1914	1915	1916	1917	1918	1919	1920 ¹
China.....	952	1,049	1,258	905	893	896	889	.....
Kwantung.....	748	1,393	578	222	418	992	1,960	.....
Asiatic Russia.....	80	72	145	93	91	61	4	.....
Other countries.....	.....	2	.....	.....	1	3	2	.....
Total quantity.....	1,780	2,516	1,981	1,220	1,403	1,952	2,855	3,881
Total value, in thousands of yen.....	7,138	10,200	6,812	4,541	6,284	11,999	22,042	36,784

¹ Details of imports for 1920 are not available.

In 1916 and 1917 imports of beans and peas showed distinct decreases as compared with preceding and succeeding years, the result, to a great extent, of circumstances imposed by war conditions. With these conditions partly or entirely removed, imports were large in 1918, 1919, and 1920. Prior to the war the rice imports were valued much in excess of those of beans and peas, but this condition has not always prevailed since. In 1915, 1916, 1917, and again in 1920 and the first half of 1921, when rice imports were small, the value of the beans and peas imported exceeded that of rice. The beans and peas imports have become one of the most important and at times the leading item in the import schedule of this group as measured by value.

Kidney beans comprise much the greater part of the exports of beans and peas, their value increasing from less than one-half million yen in 1913 to the maximum of 30,000,000 yen in 1918. During the same period the quantity increased from 61,000 piculs to 1,900,000 piculs. Most of the beans which are exported are produced within the Empire, principally in Hokkaido and Korea. Exports of soya beans are small compared with the imports, since a large part of the imports are crushed for the oil and the latter exported.

This trade was largely a war development, the demand for beans for the armies serving as a great stimulus to exports and it will be noted that the shipments are practically all to Occidental countries. The United States was the largest market, but much of this was a transit trade, the beans being reexported to European countries. The

elimination of the war demand was followed by a precipitous decline in exports, but while the war continued beans and peas formed the largest item in the Japanese food exports.

The following tables show exports of beans and peas by varieties, quantities, values, and destinations:

Exports of beans and peas, by country of destination, 1913-1921.

[Values in thousands of yen.]

Exported to—	1913	1914	1915	1916	1917	1918	1919 ¹	Per cent increase 1917 over 1913.	Per cent increase 1918 over 1913.
Great Britain.....	424	1,496	3,851	8,123	9,472	7,783	7,806	2,133	1,730
France.....	49	49	2,454	1,698	37	5,275	1,942	.....	.....
United States.....	556	773	1,358	4,521	19,951	36,359	17,936	3,488	6,439
Canada.....	149	170	282	329	1,078	2,658	673	623	1,683
Other countries.....	222	148	179	183	1,358	1,300	1,564	511	485
Total.....	1,351	2,636	8,124	14,854	31,796	53,255	29,921	.....	.....

PER CENT DISTRIBUTION.

Great Britain.....	31.38	56.75	47.40	54.69	29.78	14.58	26.09	.....	.....
France.....	.....	1.86	30.20	11.43	1.12	9.91	6.49	.....	.....
United States.....	41.16	29.32	16.70	30.43	62.74	68.28	59.94	.....	.....
Canada.....	11.03	6.45	3.47	2.22	3.39	5.00	2.25	.....	.....
Other countries.....	16.43	15.62	2.23	1.23	3.97	2.25	5.23	.....	.....
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	.....	.....

	1913	1914	1915	1916	1917	1918	1919	1920	1921
Total quantity in thousands of kin.....	19,462	40,597	93,783	117,662	206,082	166,917	78,237	35,694	16,388
Average value, yen per kin.....	.069	.065	.087	.126	.154	.319	.382	.239	.083
Per cent exports of beans and peas, etc., are of total export trade.....	.21	.45	1.14	1.32	1.92	2.71	1.43	.42	.24

¹ Details for 1920 and 1921 are not available, the totals were: For 1920, 8,514,000 yen, and for 1921 (Jan.-June) 1,354,000 yen.

Exports of beans and peas, by variety, 1913-1921.

[Quantities in thousands of piculs; values in thousands of yen.]

Year.	Kidney beans.		Soya beans.		Peas.		Other beans and peas.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1913.....	61	446	(¹)	(¹)	86	561	48	344
1914.....	107	833	7	45	250	1,453	42	305
1915.....	536	4,662	10	50	373	3,276	19	135
1916.....	574	6,759	13	78	569	7,873	21	144
1917.....	1,424	22,500	26	209	513	8,040	97	987
1918.....	1,914	30,194	12	134	1,498	22,820	17	208
1919.....	1,313	18,674	11	146	646	10,670	16	230
1920.....	423	5,285	44	521	209	2,488	14	217
1921 (January - June).....	16	127	22	211	120	920	9	96

¹ Not listed separately.

Groundnuts or peanuts.—Since 1916, when complete separate returns were first made for peanuts in the Japanese trade returns, the imports have increased enormously. The imports come chiefly from

Shantung, with occasional large shipments from British India. Although considerable amounts are imported, the total exports, either in the original form or as peanut oil, consistently exceed the amounts brought in. Though not an important item in the total figures, the ratio in which peanut imports have increased is noteworthy—an increase in value from 125,000 yen in 1917 to 6,070,000 yen in 1920, and in quantity from 28,000 piculs to 328,700 piculs. The exports also increased materially, the United States being the principal market.

Trade in groundnuts, 1913-1920.

[Quantities.]

	1913 ¹	1914 ¹	1915 ¹	1916	1917	1918	1919	1920 ²
	<i>Piculs.</i>	<i>Piculs.</i>	<i>Piculs.</i>	<i>Piculs.</i>	<i>Piculs.</i>	<i>Piculs.</i>	<i>Piculs.</i>	<i>Piculs.</i>
Imported from—								
China.....				30,487	28,099	63,665	173,962	.....
British India.....					6	39,210	8,655	.....
Other countries.....				1,482	3	3,422	5,869	.....
Total.....				31,969	28,108	106,297	188,486	328,747
Total value, in yen.....				213,163	124,968	1,006,242	2,767,000	6,069,530
Exported to—								
Great Britain.....	4,956	3,756	303	90	27	223	729	.....
United States.....	80,862	74,780	79,912	98,403	118,360	117,525	90,071	.....
British America.....	7,620	7,767	9,334	14,509	9,994	13,485	7,929	.....
Hawaii.....	1,998	1,766	2,749	1,505	1,230	634	869	.....
Other countries.....	3,365	4,538	710	2,186	11,147	9,545	9,803	.....
Total.....	98,801	92,607	93,008	116,894	140,819	141,412	109,401	89,456
Total value, in yen.....	939,043	961,881	919,422	1,286,001	1,835,444	2,525,808	2,054,000	2,100,792

¹ Imports of groundnuts not separately shown prior to 1916.

² Figures for countries not available for 1920.

Starch.—In Japan starch is made from potatoes and rice. Prior to the war the most important exporters of starch were Germany and the Netherlands. As a result of the total elimination of the German product from the world's markets, and the great reduction in the Dutch exports, the supply was depleted and this served as a decided stimulus to the Japanese production and exportation. Prior to 1917 the exports of starch from Japan were negligible and were not separately enumerated in the trade statistics.

Exports of starch, 1917-1921.

[Quantities in thousands of piculs; values in thousands of yen.]

Exported to—	1917		1918		1919		1920		1921 (January-June).	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Great Britain.....	691	10,247	949	16,266	418	7,435	158	2,065	8	54
France.....	43	815	433	8,610	204	4,005	41	551	.....	.....
United States.....	131	1,872	197	3,301	42	629	96	1,122	.....	5
Other countries.....	236	2,032	84	1,433	41	675	98	1,258	8	98
Total.....	1,101	14,966	1,663	29,610	705	12,744	393	4,996	16	157

Exports of starch reached a maximum in 1918 when they were valued at 29,600,000 yen, but after that year there was a decline. In 1918 of the total exports, 55 per cent valued at 16,266,000 yen, were

shipped to Great Britain, 29 per cent valued at 8,610,000 yen to France, and 11 per cent valued at 3,300,000 yen to the United States. Small quantities were also marketed in Egypt and British India. In 1919 the total exports were valued at 12,700,000 yen, and Great Britain continued to be the largest buyer, followed by France, the United States, British India, and Chile, in the order named. Prior to the time the United States entered the war this country imported only very small amounts of starch from Japan, but beginning with 1917 much the greater part of the American imports have come from Japan, though in 1919 the exports to the United States represented only 6 per cent of the total Japanese exports of this article.

United States imports of starch, 1913-1920.¹

Year.	Total.		From Japan.			
	Quantity (1,000 pounds).	Value (1,000 dollars).	Quantity.		Value.	
			1,000 pounds.	Per cent. of total.	1,000 dollars.	Per cent. of total.
1913.....	16,710	458	50	.....	2	.....
1914.....	15,518	409	52	.....	2	.....
1915.....	13,233	244	62	.....	3	.....
1916.....	2,467	124	677	27	24	19
1917.....	20,648	974	18,009	87	800	82
1918 ²	23,852	1,673	21,807	91	1,494	89
1918.....	26,431	2,108	25,227	95	1,975	93
1919.....	2,612	243	1,463	56	101	41
1920.....	19,139	1,017	17,379	90	886	87

¹ Commerce and Navigation.

² Figures for this and all previous years are for year ending June 30. The remaining figures are for calendar years

During the war starch was used extensively in the manufacture of explosives; in peace times in this country it is used primarily for sizing yarns and finishing textiles, though relatively small amounts are used for food purposes.

BEVERAGES, COMESTIBLES, AND TOBACCO.

(Group III of imports and Group II of exports.)

For the purpose of analyzing import statistics this group is subdivided as follows: Sugar and confectionery, alcoholic liquors, other beverages and comestibles, and tobacco. For exports two items are added to the above, tea and marine products. For the group as a whole the exports have usually been considerably larger than the imports. Importation decreased during the earlier part of the war, but increased in 1918, and in the next year exceeded the exports for the first time in seven years. Though both have increased very materially during the more recent years, on the whole exports have shown less change than have imports. During the first half of 1921 imports fell off some as compared with the preceding year, but were well above normal values, while exports decreased greatly. Some-

what similar conditions are apparent when the statistics for the twelve months preceding June 30, 1921, are considered, though the decrease in exports is not so marked.

Trade in beverages, comestibles, and tobacco, 1913-1921.

[Values in thousands of yen.]

Year.	Total im- port trade.	Imports of beverages, etc.		Total ex- port trade.	Exports of beverages, etc.	
		Value.	Per cent of total im- port trade.		Value.	Per cent of total ex- port trade.
Calendar year:						
1913.....	729,432	44,459	6.09	632,460	54,577	8.63
1914.....	595,786	28,873	4.85	591,101	52,845	8.90
1915.....	532,450	20,117	3.78	708,307	54,110	7.64
1916.....	756,428	18,643	2.47	1,127,468	68,252	6.05
1917.....	1,035,811	18,900	1.82	1,603,005	91,452	5.70
1918.....	1,668,144	49,376	2.96	1,982,101	101,086	5.13
1919.....	2,173,460	97,698	4.49	2,068,873	95,694	4.56
1920.....	2,336,175	117,141	5.01	1,948,395	117,743	6.04
1921, January-June.....	798,889	49,420	6.19	573,853	26,529	4.62
Year ending June 30:						
1919.....	1,877,632	75,377	4.01	1,892,538	98,493	5.20
1920.....	2,471,495	126,168	5.10	3,534,380	124,238	3.51
1921.....	1,517,659	98,130	6.46	2,102,181	80,823	3.84

Sugar.—Japan has long been an importer of considerable quantities of raw sugar, of qualities below No. 15 Dutch standard. Of the total Japanese imports of sugar, ordinarily more than 80 per cent grades between 11 and 15, Dutch standard, in color. This sugar is refined and a considerable portion is then reexported, practically none of the raw product being sent out of the country. Japan's imports of sugar, by grades and by countries, are given in the following tables:

Imports of raw and refined sugar, by grades, 1913-1921.

[Quantities in thousands of kin; values in thousands of yen.]

Year.	Under No. 11 Dutch standard.		Under No. 15 Dutch standard, but not under No. 11.		All other.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1913.....	106,400	6,023	416,259	29,126	21,001	1,604	543,660	36,753
1914.....	79,353	4,394	242,671	16,590	8,931	695	330,955	21,679
1915.....	67,268	3,911	126,822	9,824	13,631	1,070	207,721	14,805
1916.....	38,257	2,266	96,815	8,688	25,014	2,024	160,086	12,978
1917.....	25,746	1,514	97,151	9,440	8,703	743	131,600	11,697
1918.....	58,214	3,622	279,826	26,038	84,499	3,865	372,539	33,525
1919.....	70,198	7,805	346,822	45,049	37,783	5,330	454,803	58,184
1920.....	33,709	5,791	238,331	48,742	25,305	5,679	297,345	60,212
1921 (January-June).....	22,467	3,352	108,988	17,835	15,916	3,618	147,371	24,805

Imports of raw and refined sugar, by countries of origin, 1913-1921.

VALUES.

[In thousands of yen.]

Imported from—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (Jan.-June).
China.....	114	1	59	19	109	.....	.....	.....	.....
Hongkong.....	498	352	456	493	244	406	359	1,165	185
Dutch East Indies.....	32,381	17,971	12,409	8,580	9,164	29,344	49,308	60,336	14,718
Philippine Islands.....	3,573	1,827	1,845	3,983	2,169	3,674	7,981	7,535	4,582
Other countries.....	197	1,528	36	18	11	101	536	1,176	5,320
Total.....	36,753	21,679	14,806	12,978	11,697	33,825	58,184	80,212	24,806

PER CENT DISTRIBUTION.

Imported from—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (Jan.-June).
China.....	0.31	.....	0.40	0.15	0.94	.....	.....	.....	.....
Hongkong.....	1.33	1.62	3.08	3.72	2.09	1.21	0.62	1.93	0.75
Dutch East Indies.....	88.11	82.90	83.81	65.73	78.34	87.58	84.74	83.60	59.33
Philippine Islands.....	9.72	8.43	12.46	30.81	18.55	10.96	13.72	12.52	18.47
Other countries.....	.53	7.05	.25	.09	.08	.30	.92	1.95	21.45
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.0
Per cent which imports of sugar are of total import trade.....	5.04	3.64	2.78	1.72	1.13	2.01	2.68	2.58	3.10

QUANTITIES.

[In thousands of kin.]

Imported from—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (Jan.-June).
China.....	1,902	7	1,077	344	1,892	6	.....	.....	.....
Hongkong.....	7,740	5,416	7,247	7,496	3,440	5,137	3,838	6,713	1,216
Dutch East Indies.....	469,479	269,065	166,400	97,926	92,009	308,631	378,641	247,079	78,028
Philippine Islands.....	82,004	33,096	32,463	54,258	34,203	58,031	69,064	37,896	29,743
Other countries.....	2,535	23,371	534	72	56	734	3,270	5,658	38,385
Total.....	543,660	330,955	207,721	160,086	131,600	372,539	454,803	297,345	147,371
Average value, yen per kin..	.0676	.0655	.0713	.0811	.0888	.0900	.1279	.2026	.1683

Per cent.

Decrease in quantity, 1920, compared with 1913..... 45.32

Increase in value, 1920, compared with 1913..... 60.55

The above tables show a marked decrease in the volume of Japan's imports of sugar during most of the war period, an increase in the years 1918 and 1919 and another decrease in 1920 and the first half of 1921. At no time, however, since the outbreak of hostilities have the imports equaled in quantity those of 1913. Values increased from a low in 1917 to a high in 1920, only to recede again in the first six months of 1921. The bulk of the Japanese sugar imports originate in the Dutch East Indies and usually over 80 per cent comes from there; 62,000,000 kin (81,845,000 pounds), or 12 per cent of the total quantity, came from the Philippine Islands in 1913 and in 1916, though the absolute amount was less, the percentage increased to 30. Since then the proportion has decreased but these islands still furnish a substantial part of the imports.

Japan, including Formosa, has always produced considerable quantities of cane sugar. The Japanese Government has long at-

tached importance to this industry and encouraged it by tariff protection and subsidies. During the past three years there has been considerable reaction from the peak when Japan and Formosa produced 620,000 short tons of sugar as the annual average for the crop years 1918-19, 1919-20, and 1920-21 was 388,675 short tons.¹ During the war high prices curtailed consumption, drew forth reserves, and stimulated the production of larger crops. As a consequence, the quantities of Japanese sugar exports increased 31 per cent in 1917 as compared with 1913, and 90 per cent when a comparison is made between 1915 and 1917. The largest exports occurred during the years when imports had reached a minimum. From the high point of 1917, the quantities exported declined and in 1920 were 40 per cent below the 1913 amount and 54 per cent below the record of 1917. The amounts exported in 1917 and 1920 were respectively 146,094 short tons and 66,494 short tons. Values fluctuated considerably from year to year, but reached a maximum in 1920 of 30,600,000 yen, nearly double the exported value of 1913. The trade during the first half of 1921 declined greatly.

Exports of refined sugar, 1913-1921.

VALUES.

[In thousands of yen.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
China.....	14,270	11,526	8,582	12,312	17,511	19,446	17,289	14,570	5,017
Kwantung.....	1,199	815	1,524	1,653	3,982	2,919	3,347	2,029	1,374
British India.....	78	34	1,657	1,844	1,095	106	381	(a)	(a)
Asiatic Russia.....		2		368	1,792	190	46	472	310
African countries ^b					319	226	482	7,277	127
Other countries.....	284	6	41	245	1,452	365	82	6,245	208
Total.....	15,831	12,383	11,804	16,422	26,151	23,252	21,627	30,563	7,036

PER CENT DISTRIBUTION.

China.....	90.13	93.09	72.70	74.98	66.96	83.63	79.94	47.63	71.30
Kwantung.....	7.56	6.58	12.91	10.07	15.23	12.55	15.43	6.63	19.53
British India.....	.51	.27	14.03	11.23	4.19	.46	1.76		
Asiatic Russia.....		.01		2.24	6.85	.82	.21	1.54	4.41
African countries ^b.....						.97	2.23	28.79	1.81
Other countries.....	1.80	.05	.36	1.48	6.77	1.57	.38	20.41	2.96
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Per cent which exports of refined sugar are of total export trade.....	2.50	2.09	1.67	1.46	1.63	1.19	1.03	1.57	1.23
Average value, yen per kin.....	.094	.094	.101	.112	.118	.122	.197	.304	.253

^a Negligible.

^b Principally Egypt.

¹ Willett and Gray, Weekly Statistical Sugar Trade Journal, Sept. 22, 1921, p. 482.

Exports of refined sugar, 1913-1921—(Continued.)

QUANTITIES.

[In thousands of ktn.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
China.....	152,748	122,296	84,489	109,109	148,979	159,992	91,066	47,866	20,020
Kwantung.....	12,227	8,508	14,719	15,089	33,455	23,984	13,943	6,648	5,346
British India.....	864	352	16,895	16,542	9,183	929	1,270	.....	.....
Asiatic Russia.....	3	20	.....	2,908	14,661	1,338	1,191	1,494	1,219
African countries ¹.....	.....	.....	.....	.....	2,631	1,738	2,510	24,766	425
Other countries.....	2,921	57	406	2,546	12,075	3,826	1,790	19,770	774
Total.....	168,767	131,263	116,508	146,194	220,904	190,878	109,601	100,544	27,783

¹ Principally Egypt.

Decrease in quantity, 1920, compared with 1913	Per cent. 40.42
Increase in value, 1920, compared with 1913.....	93.20

During the period represented in these tables China has consistently taken the major portion of Japan's sugar exports. At times during the war British India also bought relatively large quantities, but this trade later declined and became negligible in the first half of 1921. Beginning with 1918 the African countries, principally Egypt, have also been in the market for considerable amounts of Japanese sugar, and these countries were the second largest purchasers in 1920.

Alcoholic liquors.—The Japanese exports of alcoholic liquors greatly exceed the imports. Although statistics for the first half of 1921 indicate a decline in imports and exports, both are still much above the pre-war values. The liquors imported are different in character from those exported, since the former consist of wine and whisky and the latter of saké and beer. Saké, a beverage distilled from rice, is the popular alcoholic drink of the Japanese. Wines and whiskies are imported mainly from Great Britain, France, Italy, and the United States. For a few years after 1916 the United States was the principal source of supply for wine, except the higher priced bottled product which comes from Europe, but later the United States Government regulated this trade and it became negligible.

Trade in alcoholic liquors, 1913-1921.

[Values in thousands of yen.]

Year.	Imports (wines, champagne, whisky, and other).	Exports (saké, beer, and other).	Year.	Imports (wines, champagne, whisky, and other).	Exports (saké, beer and other),
1913.....	853	3,032	1918.....	2,116	10,651
1914.....	760	3,150	1919.....	3,424	12,167
1915.....	611	3,277	1920.....	3,982	10,253
1916.....	936	4,875	1921 (January-June).....	1,368	4,981
1917.....	1,183	7,228			

Tea.—Japan imports only small quantities of tea, China and British India supplying this trade, which in 1920 was valued at 366,000 yen. Tea is one of the important products of Japan, and is a substantial item in the export trade. Green teas and Oolong

from Formosa comprise the bulk of the exports and these find their principal market in the United States. Limited quantities of black teas are also shipped to this country. Efforts made by the Japanese to improve the methods of production of the Oolong type have resulted in an increased output in recent years.

Exports of tea, 1913-1921.

QUANTITIES.

[In thousands of kin.]

Year.	Total.	To United States.		To Canada.	
		Quantity.	Per cent of total.	Quantity.	Per cent of total.
1913.....	25,522	21,525	84.34	2,453	9.61
1914.....	29,607	24,763	83.64	3,273	11.06
1915.....	33,988	28,355	83.42	4,333	12.75
1916.....	38,243	30,714	80.10	5,925	15.45
1917.....	50,170	42,421	84.56	4,926	9.82
1918.....	88,671	31,656	35.70	4,719	5.32
1919.....	23,201	18,934	81.61	2,302	9.92
1920.....	19,528	15,801	79.99	2,523	12.92
1921 (January-June).....	1,426	1,066	74.76	30	2.10

Year.	To China.		To other countries.		To Kwantung Prov. Ince.	
	Quantity.	Per cent of total.	Quantity.	Per cent of total.	Quantity.	Per cent of total.
1913.....	1,089	4.07	505	1.98	.....	.....
1914.....	830	2.80	741	2.50	.....	.....
1915.....	860	1.07	940	2.76	.....	.....
1916.....	778	2.03	926	2.42	.....	.....
1917.....	1,044	2.08	1,779	3.54	.....	.....
1918.....	(1)	.....	1,494	3.37	702	1.82
1919.....	(1)	.....	1,242	5.25	723	3.12
1920.....	(1)	.....	904	4.56	300	1.51
1921 (January-June).....	(1)	.....	117	8.20	213	14.94

¹ Negligible.

VALUES.

[In thousands of yen.]

Year.	Total.		To United States.		To Canada.	
	Value.	Per cent of total export trade.	Value.	Per cent of total tea exported.	Value.	Per cent of total tea exported.
1913.....	10,076	1.59	8,848	87.81	923	9.16
1914.....	12,710	2.15	11,076	87.14	1,284	10.10
1915.....	15,402	2.17	13,186	85.61	1,780	11.42
1916.....	16,082	1.42	13,309	82.76	2,124	13.21
1917.....	21,756	1.36	18,798	86.39	1,968	9.05
1918.....	23,056	1.18	19,315	83.77	2,835	12.43
1919.....	18,402	.88	15,661	85.11	1,761	9.57
1920.....	17,113	.88	14,285	83.48	2,199	12.85
1921 (January-June).....	1,052	.18	836	79.47	26	2.48

Exports of tea, 1913-1921.—Continued.

VALUES—Continued.

[In thousands of yen.]

Year.	To China.		To other countries.		To Kwantung Province.	
	Value.	Per cent of total tea exported.	Value.	Per cent of total tea exported.	Value.	Per cent of total tea exported.
1913.....	187	1.35	168	1.67	.....	.....
1914.....	118	.92	232	1.84	.....	.....
1915.....	62	.40	394	2.57	.....	.....
1916.....	237	1.47	412	2.56	.....	.....
1917.....	356	1.17	784	8.39	.....	.....
1918.....	(¹)	.....	701	3.04	175	0.76
1919.....	(¹)	.....	696	3.78	294	1.54
1920.....	(¹)	.....	479	2.80	149	.87
1921 (January-June).....	(¹)	.....	119	11.31	71	6.74

Per cent.

Increase in quantity, 1918, compared with 1913..... 51

Increase in value, 1918, compared with 1913..... 129

¹ Negligible.*Exports of tea, years ending June 30, 1919-1921.*

[Quantities in thousands of kin; values in thousands of yen.]

Year ending June 30—	Quantity.	Value.
1919.....	34,632	22,321
1920.....	24,268	20,527
1921.....	15,111	11,897

Exports of tea by chief varieties, 1913-1921.

[Quantities in thousands of kin; values in thousands of yen.]

Year.	Total.		Green.		Oolong.		Black.		Other.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1913.....	25,522	10,076	22,362	9,647	.....	.....	412	161	2,748	267
1914.....	29,607	12,710	24,935	11,903	.....	.....	1,413	478	3,261	329
1915.....	33,988	15,402	28,132	13,480	.....	.....	3,189	1,631	2,667	291
1916.....	38,343	16,082	28,819	12,532	5,828	2,951	266	107	3,430	492
1917.....	50,170	21,756	29,790	14,036	15,908	6,856	273	167	4,197	699
1918.....	38,571	23,056	31,584	20,627	2,613	1,395	223	153	4,151	881
1919.....	23,201	18,402	20,465	17,257	96	65	32	43	2,608	1,037
1920.....	19,828	17,113	17,471	16,495	429	293	61	71	1,867	254
1921 (January-June).....	1,426	1,052	1,200	960	68	45	(¹)	(¹)	158	47

¹ Included in "Other."

In 1917 the export trade had doubled both in quantity and value as compared with 1913. The maximum quantity of exports was recorded in the first mentioned year, though values did not reach the peak until 1918. The quantities have decreased rather rapidly since 1917, but values, bolstered up by the increased unit price, held up rather well until 1920. The statistics for the first half of 1921 indicate a radical reduction in both quantity and value.

The United States is by far the most important market for Japanese teas, usually taking over 80 per cent of the total exports, though this proportion showed some tendency to decrease in 1920 and the first half of 1921. Canada is the next most important market and usually absorbs more than 10 per cent of the total. During the first half of 1921 the shipments to Canada were negligible and those to the United States were only a small proportion of the usual amounts. Kwantung appeared as a rather strong factor, on a relative basis, in the market during the first six months of 1921, but the absolute amount exported to that province is small. The statistics for the twelve months preceding June 30, 1921, show that the trade has been depressed throughout the year, the quantities exported during those twelve months being less than one-third of the exports in the maximum year of 1917. The trade is at its lowest ebb since 1876 and the government of Formosa has taken action to regulate the production and sale of tea. The 1921 crop is estimated to be 25 to 30 per cent below normal, for, discouraged by the low prices, the growers have paid less attention to the cultivation of a new crop.

Marine products.—With a long, irregular coast line, touched at different points by both cold and warm currents, Japan is particularly favored in respect to sea products of all kinds. There is also a considerable catch of fresh-water fish from the numerous rivers, lakes, and marshes of the country. According to Japanese official statistics, the fishing fleet of Japan comprises approximately 400,000 vessels. The industry employs about 700,000 persons regularly and about the same number are classed as "occasional" fishermen. Approximately one-fourth of the total personnel engaged in the work are females. Fishing has reached a high state of development in Japan and the catch was officially valued at 94,800,000 yen in 1915 and 171,185,000 yen in 1918. Although fish is a staple article of the Japanese diet, the production has been sufficient to permit of a substantial export trade, as shown in the following table:

Exports of fish, 1913-1921.

[Values in thousands of yen.]

Fish.	1913	1914	1915	1916	1917	1918	1919	1920	1921 (Jan- uary- June).
Fish and shellfish, fresh	190	209	205	254	355	589	730	1,225	346
Codfish, dried	605	641	402	703	1,064	1,643	1,720	1,008	511
Sardines:									
Boiled and dried	305	334	331	286	279	260	438	349	.....
Dried	20	33	50	24	59	29	77	54	.....
Salted	23	20	13	31	55	31	67	25	.....
Trout, salted	291	212	388	696	773	723	858	1,028	326
Herring, salted	33	64	47	5	5	10	8	7	.....
Salmon in tin or glass con- tainers				261	302	1,084	492	783	29
Ligaments of scallops, dried ..	1,113	1,163	1,007	1,134	845	1,185	1,023	1,320	355
Mussels, dried	74	87	99	98	126	99	141	126	.....
Oysters, dried	30	47	44	91	141	123	139	157	.....
Shrimps and prawns, dried	565	604	481	556	554	808	728	692	212
Beche de mer, dried	468	614	580	821	636	1,038	1,304	1,150	324
Bonito flesh	143	178	162	221	250	328	442	349	181
Crabs, in tin or glass con- tainers	1,469	1,472	1,579	3,305	4,455	4,570	3,930	4,020	822
Cuttlefish, dried	4,404	3,590	2,679	3,068	4,130	3,148	2,346	2,998	692
Other fish:									
Dried and salted	1,143	1,365	1,122	1,210	1,182	1,329	2,257	1,754	572
In tin or glass containers ..	1,242	1,257	1,504	779	1,193	1,087	1,448	1,153	598
Total	12,148	11,890	10,753	13,553	16,404	19,354	18,148	18,798	5,178

The exports of this class increased substantially during the war, as measured in value, reaching a peak in 1918. In the two following years there was only a small decline, but the data for the first six months of 1921 indicate a much greater reduction during this half year. As will be noted from the table, the largest items in this schedule are cuttlefish and tinned crabs. The trade is almost exclusively with Oriental countries, China and Hongkong being the principal markets, though the United States ordinarily is the destination for the larger shipments of dried codfish, sardines, and bonito fish. The value of these last-mentioned exports is, however, small in each instance.

Miscellaneous comestibles.—The import values of the commodities included in the table below have increased steadily in recent years and, with the exception of salt and butter, have shown no tendency to decline as late as June, 1921.

Imports of miscellaneous comestibles, 1913–1921.

[Values in thousands of yen.]

Year.	Con- densed milk.	Fresh eggs.	Salt.	Butter, natural and artificial.	Meat, poultry, and fish.	
					Salted salmon.	Other. ¹
1913.....	1,857	1,479	522	122	430	151
1914.....	1,515	1,399	643	76	258	133
1915.....	1,055	1,365	347	31	128	118
1916.....	1,038	1,113	662	.....	72	74
1917.....	1,390	896	1,830	.....	.....	138
1918.....	1,436	1,841	6,021	6	99	873
1919.....	2,453	3,526	19,088	35	169	1,799
1920.....	2,772	11,070	16,412	416	551	5,865
1921 (January–June).....	1,750	10,754	2,363	90	.....	4,505

¹ Includes salted herring and beef, and in 1921 (January–June) salted salmon. Beef imports during the first six months of 1921 were valued at 3,850,000 yen.

Salted salmon comes from the United States and Canada, the larger quantities coming from the first-mentioned country. The egg imports are furnished almost entirely by China. This trade decreased materially during the war, but has shown a large increase since the close of hostilities. The condensed-milk imports during the war also show a reduction, but they, too, have since increased and show no decline in the first half of 1921. The United States ordinarily supplies from 80 to 90 per cent of the condensed milk, the balance coming from Great Britain, and, more recently, in increasing quantities from Australia.

Mushrooms, fruits and nuts, seaweed, and colle are the largest items in exports of miscellaneous foodstuffs, and account for the major portion of this group's value. Mandarins are the most important item in the Japanese exports of fruits, amounting in value to 1,337,217 yen in 1913, 938,000 yen in 1917, and 2,381,000 yen in 1920. The bulk of these exports usually goes to Kwantung and Asiatic Russia, most of the remainder being sent to China and Canada. Apples are next in importance among fruit exports but the value is negligible. Most of the mushrooms are shipped to Hongkong and China, though small quantities are exported also to the Straits Settlements, the United States, Hawaii, and other countries.

Soy is a sauce of which soya beans mixed with parched wheat and rice are the principal ingredients. The United States, Hawaii, Kwangtung, and Asiatic Russia are the principal purchasers of Japanese soy, which would indicate that it goes mainly to those countries having a considerable number of Japanese residents. Colle, or vegetable isinglass, is exported in greatest amounts to China, the remainder going to the United States, Hongkong, Dutch East Indies, Straits Settlements, Great Britain, and other countries. The most recent statistics show a decline in this trade.

Most important among the remaining items in the miscellaneous group of foodstuffs are various fish and vegetables preserved in tin or glass containers. They are shipped to a number of countries, most important of which are the United States and Great Britain. In 1917 and 1918 Great Britain was the largest purchaser of these commodities, but since then the British trade has decreased greatly.

Exports of miscellaneous comestibles, 1913-1921.

[Values in thousands of yen.]

	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
Vegetables:									
Onions.....	698	662	596	624	619	789	1,119	900	219
Ginger (dried).....	415	234	291	427	663	1,144	208	148	.....
Mushrooms.....	1,408	1,500	1,310	1,655	2,070	2,329	2,535	2,258	607
Other.....	915	920	1,092	1,544	1,270	1,197	1,460	1,791	704
Fruits and nuts.....	2,247	1,860	1,813	1,803	1,410	2,489	3,001	3,274	762
Soy.....	955	976	987	1,110	1,452	767	969	877	441
Colle or vegetable isinglass..	1,774	1,857	1,706	2,447	1,955	2,969	2,063	1,436	996
Seaweed.....	2,041	1,922	1,951	2,461	2,833	4,455	3,004	4,072	730

Exports of comestibles, in containers,¹ 1913-1921.

[Values in thousands of yen.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
United States.....	1,698	1,857	1,272	2,304	2,516	2,374	3,842	4,298	796
Great Britain.....	473	670	1,301	1,312	2,605	3,463	1,650	845	236
Australia.....	53	79	304	431	345	.....	.....	.....	.....
China.....	179	222	121	211	368	874	622	585	198
Kwantung.....	105	103	100	122	161	483	540	582	161
Hawaii.....	388	327	304	431	345	273	401	621	276
Other countries.....	425	488	242	436	990	2,166	2,127	1,014	68
Total.....	3,821	3,246	3,644	5,347	7,330	9,633	9,182	7,945	1,985

¹ Comprises awabi, crabs, fish in oil, other fish, kamaboko, vegetables, and other comestibles in "tins and bottles."

The trade in this group shows a general decline since 1918, following a war-stimulated increase.

Tobacco.—In 1898 the Japanese Government, primarily for the purpose of raising revenue, made the tobacco trade a State monopoly. It applies to the importation, manufacture, and sale of cigarettes, cigars, and cut tobacco. The Government Monopoly Bureau does not export tobacco directly, but conducts the business through commercial houses to which it grants licenses.

Imports of tobacco, 1913-1921.

[Quantities in thousands of kin; values in thousands of yen.]

Year.	Leaf.		All other, value.	Total value.	Year.	Leaf.		All other, value.	Total value.
	Quantity.	Value.				Quantity.	Value.		
1913.....	1,580	895	349	1,244	1918.....	1,517	1,760	281	2,041
1914.....	2,473	1,356	171	1,527	1919.....	8,366	5,289	696	5,975
1915.....	1,448	789	136	925	1920.....	11,252	10,537	857	11,394
1916.....	894	504	143	647	1921 (January to June).....	1,730	1,739	215	1,954
1917.....	493	397	165	562					

Imports of tobacco from the United States, 1913-1921.

[Values in thousands of yen.]

Year.	Leaf.			All other.			Total tobacco.		
	Total.	From United States.		Total.	From United States.		Total.	From United States.	
		Value.	Per cent of total.		Value.	Per cent of total.		Value.	Per cent of total.
1913.....	895	899	97.09	349	168	48.14	1,244	1,087	88.36
1914.....	1,356	1,257	92.70	170	9	5.29	1,526	1,266	82.96
1915.....	789	726	92.01	137	6	4.38	925	732	79.03
1916.....	504	459	91.07	143	13	9.09	647	472	72.26
1917.....	397	329	82.87	166	13	7.83	562	342	60.74
1918.....	1,760	1,582	89.89	281	14	5.00	2,041	1,596	78.29
1919.....	5,289	2,216	41.90	696	97	14.14	5,975	2,313	38.71
1920.....	10,537	(1)	.....	857	(1)	.....	11,394	(1)	.....
1921 (January-June).....	1,739	(1)	.....	215	(1)	.....	1,954	(1)	.....

* Figures showing imports from the United States in 1920 and 1921 not available.

Exports of tobacco and manufactures thereof, 1913-1921.

Year.	Leaf.		Cigarettes.		Other.	Total.
	Quantity (1,000 kin).	Value (1,000 yen).	Number. (1,000).	Value (1,000 yen).	Value (1,000 yen).	Value (1,000 yen).
1913.....	357	85	276,935	448	30	563
1914.....	189	61	139,871	251	14	326
1915.....	652	162	117,579	197	13	372
1916.....	1,702	282	187,223	381	14	677
1917.....	7,508	1,397	204,576	336	19	1,802
1918.....	1,762	312	227,000	465	38	815
1919.....	339	114	265,000	590	46	750
1920.....	194	99	125,000	381	47	527
1921 (January-June).....	249	159	11,000	40	29	228

Exports of leaf tobacco and cigarettes to China, 1913-1921.

(Values in thousands of yen.)

Year.	Leaf.			Cigarettes.			Total tobacco.		
	Total.	To China.		Total.	To China.		Total.	To China.	
		Value.	Per cent of total.		Value.	Per cent of total.		Value.	Per cent of total.
1913.....	85	80	94.12	448	303	67.63	563	393	69.81
1914.....	61	52	85.24	251	97	38.64	326	155	47.55
1915.....	162	68	41.97	197	129	65.48	372	199	53.49
1916.....	282	79	28.01	381	264	69.29	677	346	51.25
1917.....	1,397	209	14.96	396	187	48.44	1,802	399	22.14
1918.....	312	74	23.72	465	257	58.30	815	351	43.07
1919.....	114	31	27.20	590	271	46.00	750	328	43.74
1920.....	99	(1)	.....	381	(1)	.....	527	(1)	.....
1921 (January-June).....	159	(1)	.....	40	(1)	.....	228	(1)	.....

1 Figures not available.

In 1913 the tobacco imports were valued at something over 1,000,000 yen. With the war came a decline, the minimum being reached in 1917 when the imports were valued at less than half of those of 1913. Later there was an increase, reaching a maximum in 1920, when the total value equaled 11,400,000 yen. Available data indicate a radical reduction in this trade during the first half of 1921, as compared with the years immediately preceding. The United States has been the principal source of supply for Japan's leaf tobacco and until 1919 usually supplied over 90 per cent of the total, but in that year the proportion fell to 42 per cent and the trade was about equally divided between China and the United States.

The Japanese exports of tobacco and tobacco manufactures are ordinarily small, consisting mainly of cigarettes and leaf tobacco. Cigarettes usually constitute the greater part of the trade, though in 1917 and again in the first half of 1921 leaf tobacco exports were the larger. Cigarettes are exported almost exclusively to China and Kwantung. Prior to 1917 China had also been the largest market for Japan's leaf tobacco exports. In 1915 a new buyer, Egypt, entered the Japanese market and bought leaf tobacco to the extent of 140,000 kin, valued at 50,500 yen, taking rank next to China as a purchaser. This Egyptian trade increased, and in 1917 that country took first place among Japan's tobacco leaf buyers, securing 2,646,000 kin (3,500,000 pounds), valued at 504,000 yen. This appears to have been a war growth, however, for the trade later decreased rapidly and in 1919 became negligible.

Because of war disturbances and transportation difficulties there has been a shortage in the world's market of certain types of leaf tobacco for blending in the making of cigarettes. This shortage caused the American manufacturers to turn to Japan for a substitute to be used in certain brands of the cheaper grades of cigarettes. This accounts for the exports to the United States in 1917 and 1918, which were relatively large but not very important when absolute values are considered. These exports to the United States have ceased since 1918.

**SKINS, HAIRS, BONES, TEETH, TUSKS, SHELLS, AND MANUFACTURES
THEREOF.¹**

(Group IV of imports and Group III of exports.)

The Japanese trade in this group of commodities constitutes a small part of the foreign trade of the Empire, usually somewhat more than about 1.5 per cent of the total imports and about 0.5 per cent of the exports.

*Trade in skins, hairs, bones, horns, teeth, tusks, shells, and manufactures
Imports of hides and skins by classes, 1913-1921.*

[Values in thousands of yen.]

Year.	Imports.		Exports.		Year.	Imports.		Exports.	
	Value	Per cent of total import trade.	Value.	Per cent of total export trade.		Value.	Per cent of total import trade.	Value.	Per cent of total export trade.
1913.....	8,968	1.23	4,178	0.66	1918.....	28,584	1.71	8,225	0.42
1914.....	8,165	1.37	3,234	.54	1919.....	36,087	1.06	6,920	.33
1915.....	12,622	2.37	6,022	.85	1920.....	44,848	1.92	6,479	.33
1916.....	18,448	2.44	5,766	.61	1921 (January-June).....	12,599	1.58	1,717	.30
1917.....	16,546	1.60	7,528	.47					

Imports in 1920 amounted to 44,848,000 yen as compared with 8,968,000 yen in 1913, an increase of 400 per cent. Exports in 1920 equaled 6,479,000 yen as compared with 4,178,000 yen in 1913, a gain of 55 per cent. Since 1913 the value of imports of this group, when compared with the total import trade, has shown a slight increase, forming 1.23 per cent of the total in 1913 and 1.92 per cent in 1920. On the other hand the value of exports has declined from 0.66 per cent of the total in 1913 to 0.33 per cent in 1920. A large amount of the raw material imported is reexported in the form of manufactured products and the value consequently often appears in other export groups. Hides and skins, bristles, bones, shells, and such semi-manufactured products as leather, make up the important items of import. All these commodities are utilized by Japanese industries for the manufacture of finished products for domestic consumption or for export.

Imports of hides and skins by classes, 1913-1921.

[Values in thousands of yen.]

Year.	Bull, ox, cow and buffalo hides.	Deer, red deer, waste, and other skins.	Total.	Year.	Bull, ox, cow, and buffalo hides.	Deer, red deer, waste, and other skins.	Total.
1913.....	2,187	354	2,542	1918.....	6,758	5,132	11,890
1914.....	1,868	564	2,432	1919.....	11,941	3,519	15,460
1915.....	5,909	489	6,398	1920.....	16,122	3,237	19,360
1916.....	8,040	890	8,930	1921 (January-June).....	3,850	802	4,652
1917.....	3,774	2,068	5,842				

¹ Except leather boots, which are classified under clothing.

Imports of hides and skins, by countries of origin, 1913-1921.

[Values in thousands of yen.]

Imported from—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June)
China.....	1,019	1,044	5,044	7,011	4,580	8,221	12,036	15,140	3,929
Kwantung.....	111	289	319	446	152	719	582	752	103
British India.....	8	13	22	168	109	1,219	255	153	12
Straits Settlements.....	16	33	119	177	64	810	1,006	388	3
United States.....	517	624	585	891	500	258	900	1,658	344
Australia.....	38	153	201	80	65	219	125	257	51
Other countries.....	833	276	106	157	251	444	556	1,112	148
Total.....	2,542	2,432	6,398	8,930	5,842	11,890	15,460	19,360	4,632

Hides and skins.—The outstanding items in this group are hides and skins. Since 1914 the value of these imports has increased greatly and a comparison of 1920 with 1913 shows a gain of over 600 per cent. In 1913 China provided 40 per cent and the United States 20 per cent of the hide and skin imports, but in 1920 China supplied 78 per cent and the imports from the United States declined to 8 per cent. The value of imports from China during this period of years has shown an increase of over 1,300 per cent. The trade for the first six months of 1921 has shown a decided decline, though China is still the chief source of supply and controls 84 per cent of the total. Chinese exports of horsehides to Japan grew from 860,185 pounds in 1913 to 3,664,550 pounds in 1918, an increase of 326 per cent. Exports of cow and buffalo hides from China to Japan have increased from 3,001,249 pounds in 1913 to 11,388,752 pounds in 1918, or 279 per cent, while exports of goatskins (pieces) grew from 15,057 in 1913 to 736,783 in 1918. The Chinese exports of sheepskins to Japan increased from 1,660 pieces in 1913 to 461,658 pieces in 1918.

Leather.—The lack of extensive stock farming in Japan makes it impossible for the country to be self-dependent in the supply of hides and leathers, especially in view of the growing demand for leather goods. Larger quantities of these raw materials have been imported to supply the increasing Japanese needs.

Imports of leather and manufactures thereof, 1913-1921.

VALUES.

[In thousands of yen.]

Year	Leather.				Leather manufactures.		
	Sole leather.	Other sheep and goat leather.	All other.	Total.	Sweat-band leather for hats.	Other.	Total.
1913.....	803	743	898	2,444	147	75	222
1914.....	412	761	773	1,946	144	42	186
1915.....	435	884	589	1,908	75	23	98
1916.....	425	1,058	1,306	2,789	209	71	280
1917.....	184	806	1,112	2,102	292	88	380
1918.....	593	689	2,245	3,527	585	80	665
1919.....	1,351	1,335	2,702	5,388	334	82	416
1920.....	4,031	1,811	2,345	8,187	617	861	1,478
1921 (January-June).....	1,323	1,275	1,178	3,776	264	191	455

Imports of leather and manufactures thereof, 1913-1921—Continued.

QUANTITIES.

[In thousands of kin.]

Year.	Leather.				Leather manufactures.		
	Sole leather.	Other sheep and goat leather.	All other.	Total.	Sweat-band leather for hats.	Other.	Total.
1913.....	959	617	538	2,114	32		
1914.....	472	570	342	1,384	31		
1915.....	474	669	271	1,414	18		
1916.....	430	665	686	1,781	38		
1917.....	153	378	403	934	34		
1918.....	509	309	716	1,534	54		
1919.....	980	434	593	2,007	31		
1920.....	2,501	565	543	3,609	49		
1921 (January-June).....	1,000	600	225	1,825	25		

While the value of leather imported has increased from 2,444,000 yen in 1913 to 3,527,000 yen in 1918 and to 8,187,000 yen in 1920, the quantity did not increase substantially except in the year 1920 when there were unusually large imports of sole leather. The sole leather comes very largely from the United States and 69 per cent of the total leather imports were supplied by this country in 1919. A large amount of the miscellaneous leathers as well as that used in the manufacture of sweatbands for hats is furnished by Great Britain. The Japanese Government has interested itself in this industry and the advance of the tariff in 1911 from 5.60 yen to 15.20 yen per 100 kin on leather and the removal of a 5 per cent ad valorem import duty on cowhides gave a considerable stimulus to the production of leather. The present Japanese tariff on rough-tanned hides is 9.5 yen per 100 kin; on sole leather 15.2 yen per 100 kin; on other leathers lacquered, japanned, enameled, dyed, or colored, except roller leather, 20 per cent ad valorem.

Bristles.—In 1918 the total value of bristles imported by Japan reached the high peak of 3,873,000 yen, an increase of over 900 per cent as compared with 1913. During this period of years the quantity imported increased 496 per cent, the ratio of value increase to quantity increase being nearly 2 to 1, and this ratio becomes more than 3 to 1 when 1920 is compared with 1913. For the first six months of 1921 there is a decided decline in both value and quantity imported. Bristles are imported to meet the demands of the Japanese brush industry which was greatly stimulated during the war. Nearly all raw material for brushes is imported, the bristles coming chiefly from China and Europe.

Imports of bristles, 1913-1921.

[Quantities in thousands of kin; values in thousands of yen.]

Year.	Pig or hog.		Other.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1913.....	237	283	100	97	337	380
1914.....	251	373	135	114	386	487
1915.....	471	589	155	127	626	716
1916.....	939	1,448	356	440	1,295	1,888
1917.....	506	1,087	450	491	956	1,578
1918.....	1,089	3,205	920	668	2,009	3,873
1919.....	665	2,871	880	957	1,545	3,828
1920.....	583	2,405	494	974	1,077	3,379
1921 (January-June).....	198	442	92	219	290	661

Bones.—The importation of bones for the manufacture of handles for tooth brushes and other purposes has increased. However it should be noted that the increase in quantity imported is small while values have nearly doubled. Bones imported for this purpose come mainly from China, Australia, and the United States.

Shells.—In 1917 the quantity of shells imported by Japan reached the peak, 19,398,618 pounds valued at 2,525,464 yen. In 1919 the quantity imported declined slightly to 18,245,178 pounds but the value increased to 3,566,419 yen. The available data for the first six months of 1921 indicate a serious reduction in this trade. The shells imported in 1919 came from Australia, British India, the Straits Settlements, the Dutch East Indies, China, and the Philippine Islands, in the order named. The great expansion in the importation of shells during the last few years, is due largely to the demand created by the very rapid growth of the shell button industry in Japan.

Furs, etc., exports.—Furs, leather and manufactures thereof, are the most important items of exports in this group. Furs, comprising seal, sea-otter and weasel pelts are exported and are mostly in demand in China, Great Britain, and the United States. The peak in value of furs exported was reached in 1919 when an increase over 1913 of 154 per cent was recorded. The available data indicate a decided reduction in this trade for the year 1921. The value of leather exported reached the highest point in 1918 with an increase of 365 per cent as compared with 1913. China is one of the most important markets for Japan's leather and leather manufactures. Coral, ivory, and catgut are also included in this group. The chief market for catgut exported from Japan is the United States.

Exports of skins, hair, horns, tusks, etc., and manufactures thereof, 1913-1921.

[Values in thousands of yen.]

Year.	Furs.	Leather.	Leather manufactures. ¹	All other skins, hair, etc., and manufactures of.	Total.
1913.....	563	958	76	2,581	4,178
1914.....	502	869	71	1,792	3,234
1915.....	121	772	78	5,051	6,022
1916.....	544	1,072	2,148	1,402	5,166
1917.....	801	3,891	1,301	1,535	7,528
1918.....	1,402	4,460	838	1,525	8,225
1919.....	1,433	2,405	864	2,218	6,920
1920.....	1,286	1,192	768	3,433	6,679
1921 (January-June).....	442	443	225	607	1,717

¹ Does not include leather boots and shoes, which are classed under "Clothing and accessories."

Comparing the total value of export trade for all articles included in this group, the year 1918 shows a 97 per cent increase over 1913. In 1920 the total value showed a decline and exceeded 1913 by only 55 per cent.

OILS, FATS, WAXES, AND MANUFACTURES THEREOF.

(Group V of Imports and Group IV of exports.)

The Japanese trade in oils, fats, waxes, and manufactures thereof, as officially classified, is of minor importance when compared with the total import and export trade. In 1920 imports of this group amounted to 2.58 per cent of the total import trade; in the first six months of 1921 this had increased to 3.29 per cent. Exports in 1920 amounted to 1.72 per cent of the total export trade, but the first six months of 1921 show a decided decline to .59 per cent of the total.

The imports of commodities included in this group during the period 1913-1917 decreased slightly in value, but commencing with 1918 and through 1920 there is a decided change, the imports for these years showing a marked and steady increase in value. The total value of imports in 1920 was 60,340,000 yen, as compared with 20,211,000 yen in 1913, or an increase of nearly 200 per cent. However, it will be noted that during this period of years the percentage which this group forms of the total import trade has varied but little.

The value of exports in 1918 showed a marked increase over the preceding year and when compared with those of 1913 a gain of over 350 per cent is apparent. The year 1918 marks the peak, and since then there has been a decline in exports, which is especially noticeable during the first six months of 1921. The value of exports in 1920 was 33,534,000 yen, which represents an increase of 239 per cent when compared with those of 1913. The exports in 1917 were greater than imports in that year by about 9,000,000 yen, but in 1920 the imports exceeded the exports by approximately 26,800,000 yen.

The following tables show the values of the imports and exports of articles of these groups, and also the principal items which made up the imports for the calendar years 1913-1920 and the first six months of 1921:

Trade in oils, fats, waxes, and manufactures thereof, 1913-1921.

[Values in thousands of yen.]

Year.	Imports.		Exports.		Year.	Imports.		Exports.	
	Value.	Percent of total import trade.	Value.	Percent of total export trade.		Value.	Percent of total import trade.	Value.	Percent of total export trade.
1913.....	20,211	2.77	9,992	1.58	1918.....	33,313	2.00	45,804	2.33
1914.....	17,078	2.87	8,398	1.42	1919.....	49,487	2.28	35,454	1.69
1915.....	17,276	3.24	10,147	1.43	1920.....	60,340	2.58	33,534	1.72
1916.....	17,386	2.30	21,658	1.92	1921 (January-				
1917.....	19,458	1.88	28,976	1.81	June).....	26,278	3.29	3,391	.59

Imports of oils, fats, waxes, and manufactures thereof, 1913-1921.

VALUES.

[In thousands of yen.]

	1913	1914	1915	1916	1917	1918	1919	1920	1921
Vegetable oils:									
Volatile, fragrant, ¹ etc.	947	719	985	1,510	1,357	2,586	2,944	2,999	1,532
Linseed	98	70	146	54	33	123	95	50	46
Castor	106	93	170	226	131	303	459	219	46
Coconut	146	227	151	183	390	117	66	198	33
Soya bean	582	284	271	111	132	497	725	328	33
Colza (rapeseed)	172	34	126	95	232	116	155	438	56
Other	89	75	142	170	138	263	249	556	8
Animal fats:									
Tallow	1,287	1,324	1,326	1,481	3,234	4,166	4,215	6,460	3,046
Olefin	128	92	125	112	159	341	385	157	6
Other	609	287	36	159	629	605	946	2,180	2,096
Mineral oils:									
Crude	258	339	715	411	499	208	635	1,123	73
Petroleum benzine	130	695	433	309	584	2,478	2,746	6,186	2,739
Illuminating oils—									
Kerosene or petroleum	11,102	8,667	8,463	5,571	5,305	8,588	21,676	21,273	7,125
Other	538	351	335	605	352	948	1,386	2,522	77
Other mineral oils	1,184	1,158	1,041	1,454	1,396	3,566	3,171	4,972	2,449
Paraffin	1,805	1,896	2,073	2,681	3,792	6,783	8,940	7,572	4,745
All other oils and waxes	1,030	777	738	1,253	1,095	1,675	694	3,107	124

¹ Official classification.

QUANTITIES.

	Unit of quantity.	1913	1914	1915	1916	1917
Vegetable:						
Volatile, etc.	1,000 kin.	216	186	213	273	322
Linseed	do.	440	335	844	274	111
Castor	do.	733	581	1,128	1,226	352
Coconut	do.	821	1,223	863	864	1,390
Soya bean	do.	4,725	2,426	2,299	881	774
Colza (rapeseed)	1,000 gallons	565	121	396	266	337
Total value in 1,000 yen		2,140	1,502	1,991	2,349	2,413
Animal:						
Tallow	1,000 kin.	7,517	8,225	7,731	6,949	12,711
Olefin	do.	734	549	925	690	633
Other	do.	8,308	1,566	664	517	2,045
Total value in 1,000 yen		2,024	1,708	1,487	1,753	4,022
Mineral:						
Crude	1,000 gallons	3,520	2,495	4,766	2,739	3,263
Petroleum benzine	do.	296	1,786	1,077	708	1,140
Illuminating oils—						
Kerosene or petroleum	do.	48,175	35,452	34,360	22,274	19,427
Other illuminating oils	do.	1,116	765	826	1,389	630
Other mineral oils	1,000 kin.	14,796	14,212	13,979	15,573	11,920
Total value in 1,000 yen		13,212	11,200	10,987	8,350	8,126
Paraffin:						
With a melting point below 45°						
C	1,000 kin.	6,242	5,654	2,451	10,315	3,496
Other	do.	7,292	9,289	13,474	14,134	14,432
Total value in 1,000 yen		1,805	1,896	2,073	3,681	3,792
All other oils, and waxes: Total value in 1,000 yen		1,030	777	738	1,253	1,095

Imports of oils, fats, waxes, and manufactures thereof, 1913-1921—Continued.

QUANTITIES—continued.

	Unit of quantity.	1918	1919	1920	1921 (Jan.-June).
Vegetable:					
Volatile, etc.....	1,000 kin.....	509	335	410	238
Linseed.....	do.....	331	283	112	.....
Castor.....	do.....	790	1,300	670	141
Coconut.....	do.....	515	360	708	.....
Soya bean.....	do.....	1,991	2,792	1,177	6,295
Colza (rapeseed).....	1,000 gallons...	291	210	551	113
Total value in 1,000 yen.....		4,005	4,693	4,788	2,364
Animal:					
Tallow.....	1,000 kin.....	15,163	12,211	15,340	154
Olein.....	do.....	1,183	1,354	332	391
Other.....	do.....	1,892	2,536	4,768	187
Total value in 1,000 yen.....		5,112	5,546	8,797	5,204
Mineral:					
Crude.....	1,000 gallons...	1,271	2,511	4,157	3,001
Petroleum benzine.....	do.....	2,758	2,663	6,106	2,671
Illuminating oils—					
Kerosene or petroleum.....	do.....	23,277	37,359	34,911	11,573
Other illuminating oils.....	do.....	1,479	1,552	2,850	790
Other mineral oils.....	1,000 kin.....	25,543	17,593	26,670	118
Total value in 1,000 yen.....		15,738	29,614	36,076	13,841
Paraffin:					
With a melting point below 45° C.....	1,000 kin.....	7,340	4,446	5,666	11
Other.....	do.....	18,394	19,767	21,637	151
Total value in 1,000 yen.....		6,783	8,940	7,572	4,745
All other oils, fats, etc.: Total value in 1,000 yen.....		1,675	694	3,107	124

Since 1914 the value of imports of volatile oils has shown a steady increase. Importations of these oils were valued at 2,999,000 yen in 1920 and 947,000 yen in 1913. The non-volatile vegetable oils imported showed a substantial decrease from 1913 through 1917, but later increased reaching a peak of 1,749,000 yen in 1919. In 1920 the leading items of import in this nonvolatile group were colza, soya bean, and castor oils. The importations of mineral waxes have shown generally a continual increase since 1913.

The preceding table shows in detail the various amounts of oils, fats, waxes, etc., imported by Japan during the years 1913-1920 and the first six months of 1921. In comparing the imports for the years 1920 and 1913 it will be noted that the values have increased in a far greater ratio than have the quantities and in some instances the latter have actually decreased. Some of the vegetable oils that have shown a decrease in quantity imported when 1920 is compared with 1913 are linseed, castor, coconut, and soya bean oil. The total quantity of kerosene and crude paraffin imported in 1920 was also less than that of 1913.

Imports of kerosene, 1913-1921.

[Quantities in thousands of gallons; values in thousands of yen.]

Year.	Total.			From United States.			From Dutch East Indies.		
	Quantity.	Value.	Per cent of total import trade.	Quantity.	Value.	Per cent of total value.	Quantity.	Value.	Per cent of total value.
1913.....	48,175	11,102	1.52	33,146	7,577	68.25	15,029	3,525	31.75
1914.....	35,452	8,637	1.45	26,415	6,402	73.95	9,037	2,235	26.05
1915.....	34,360	8,464	1.59	27,184	6,695	79.11	7,176	1,769	20.89
1916.....	22,274	5,571	.74	19,829	4,983	89.45	2,445	588	10.55
1917.....	19,427	5,305	.51	17,944	4,904	92.45	1,483	401	7.55
1918.....	23,277	8,537	.81	19,753	7,387	86.53	3,513	1,147	13.43
1919.....	37,359	21,675	.99	30,719	18,427	85.02	6,637	3,246	14.96
1920.....	33,911	21,272	.91	29,428	19,085	89.72	4,483	2,187	10.28
1921 (January-June).....	11,573	7,125	.89	8,363	5,315	74.60	3,162	1,784	25.04

Kerosene.—Kerosene has always been one of the principal items among the imports of oils, fats, waxes, and manufactures thereof. In 1913 kerosene constituted 55 per cent of the total value of imports in this group; in 1919, 44 per cent; in 1920, 35 per cent. During the period 1913-1917 the importations of illuminating oils decreased from 48,175,000 gallons in the former year to 19,427,000 gallons in 1917. Later there was an increase and in 1919 a total of 37,359,000 gallons were imported, but since then there has been another decided decline. The value of the imports in 1920 had increased 300 per cent as compared with that of 1917, while quantity imports for the same years show a gain of about 80 per cent. The greater production of petroleum in Japan, the progress made in the installation of electric lighting systems, and the check on domestic consumption caused by high prices and difficult transportation are some of the factors which contributed to the decline in imports of kerosene during this period.

Practically all kerosene imported by Japan is supplied by the United States and the Dutch East Indies. The details of this trade are shown in the preceding table. It will be seen that the imports of kerosene from the Dutch East Indies, which prior to the war were of considerable importance, later decreased materially, and in 1920 imports from the Dutch East Indies represented 10.28 per cent of the total as compared with 89.72 per cent from the United States. The proportions supplied by these two countries during the first six months of 1921 are, however, similar to those of 1914.

Volatile oils.—In 1913 Germany and France were the chief sources of supply for all volatile oils imported by Japan. In that year Germany controlled 49 per cent of this trade and France, 24 per cent: the imports from the United States were negligible, being less than 1 per cent. In 1917 France became the chief source of supply and furnished about 38 per cent of the total, while 27 per cent came from Great Britain and 8 per cent from the United States. The total value of imports of this item in 1920 was 2,998,637 yen compared with 946,604 yen in 1913, an increase of approximately 217 per cent.

Imports of volatile oils, vegetable, fragrant,¹ 1913, 1917, and 1918-1921.

Imported from—	1913	1917	1918	1919	1920 ²	1921 (January-June) ²
	Yen.	Yen.	Yen.	Yen.	Yen.	Yen.
Germany.....	463,627					
France.....	224,693	517,574	421,000	1,097,000		
Great Britain.....	151,137	347,927	908,000	715,000		
United States.....	654	118,535	282,000	214,000		
Other countries.....	106,493	372,980	975,000	918,000		
Total.....	946,604	1,357,016	2,586,000	2,944,000	2,998,637	1,331,881

¹ Official classification.² Imports by countries not available for 1920 and 1921.

Paraffin.—Since 1913 both the quantity and value of paraffin imports have steadily increased, and this has been particularly true of the better grades of the wax. The United States has continually been Japan's chief source of supply for the crude paraffin, and in 1919, 86 per cent of this trade was controlled by the United States. The Dutch East Indies and British India have furnished the greater part of the better grades and the amounts coming from the United States have been relatively small. As will be seen from the table, the total imports of this commodity increased in value from 1,805,000 yen in 1913 to 7,572,000 yen in 1920, while quantities grew from 13,534,000 kin to 27,303,000 kin. It will be noted that the value of imports increased about 319 per cent, while the quantity increased 100 per cent, or in other words, the ratio of value increase to quantity increase was approximately 3 to 1. In 1920, 37 per cent of all paraffin imported by Japan was supplied by British India, 34 per cent by the Dutch East Indies, and 27 per cent by the United States. The figures for the first six months of 1921 seem to indicate that the imports for this year will equal, if not exceed, the imports for 1920. The growing Japanese production of candles, matches, wax paper, and water-proof fabrics contribute to this increased importation of paraffin.

Imports of paraffin, 1913, 1917-1921.

[Values in thousands of yen.]

Imported from—	With a melting point below 45°C.			
	1913	1917	1918	1919
Great Britain.....	343	47	45	
United States.....	412	354	1,618	1,142
British India.....	5			
Dutch East Indies.....		122	248	179
Germany.....				
Austria-Hungary.....	2			
Other countries.....	5		3	1
Total.....	767	523	1,914	1,322
Total quantity, in thousands of kin.....	6,242	3,496	7,340	4,446

Imports of paraffin, 1913-1921—Continued.

Imported from—	All other.				Total.		
	1913	1917	1918	1919	1913	1920	1921 (Jan.-June).
Great Britain.....	39	10	.....	14	382	.....	.....
United States.....	818	508	448	762	730	2,025	635
British India.....	362	1,385	1,676	2,261	367	2,774	2,122
Dutch East Indies.....	66	1,277	2,699	2,564	66	2,595	1,835
Germany.....	114	.....	.....	.....	114	.....	.....
Austria-Hungary.....	132	.....	.....	.....	134	.....	.....
Other countries.....	7	4	46	17	12	178	153
Total.....	1,038	3,269	4,869	5,618	1,805	7,572	4,745
Total quantity, in thousands of kin.....	7,292	14,482	18,304	19,767	13,534	27,308	16,175

Oil seeds, oil cake, and nuts.—The following table shows in detail the various oil seeds, oil cake, and nuts imported by Japan during the years 1913-1920 and the first six months of 1921. Most of the oil seeds are officially classified with grains, etc., but for the purpose of logical discussion are included under oils. Oil cake is usually the second largest individual item in value among all imports, being exceeded ordinarily only by cotton. In 1920 imports of oil cake were valued at 150,905,000 yen and came almost entirely from Far Eastern countries, China and Kwantung alone furnishing over 90 per cent. It will be noted, when comparing values of imports in 1920 with those for 1913, that there was an increase of 282 per cent while quantities increased only 40 per cent.

Imports of oil seeds, oil cake, and nuts, 1913-1921.

[Quantities in thousands of piculs; values in thousands of yen.]

	1913		1914		1915		1916	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Sesame.....	99	797	112	948	199	1,314	164	1,078
Perilla.....	75	435	34	200	59	373	85	521
Rape seed and mustard seed.....	269	1,413	425	2,181	998	4,789	614	3,413
Linseed.....	.....	.....	.....	.....	32	156	114	654
Cotton seed.....	201	411	240	515	520	1,109	374	807
Copra.....	43	446	51	524	69	644	297	3,365
Oil cake:								
Bean.....	12,115	33,564	10,461	29,784	12,359	32,387	12,953	34,572
Cottonseed.....	680	1,918	741	2,071	760	1,988	494	1,420
Rape seed.....	1,452	3,597	1,099	2,734	669	1,593	567	1,478
Other.....	69	171	86	212	60	160	27	76

	1917		1918		1919		1920		1921 (Jan.-June).	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Sesame.....	91	923	195	2,357	181	2,685	138	2,184	137	1,234
Perilla.....	133	819	129	970	265	2,869	367	5,381	263	1,638
Rape seed and mustard seed.....	593	4,282	964	9,147	561	6,573	192	1,696	358	2,599
Linseed.....	63	360	110	916	146	1,563	48	695	30	143
Cotton seed.....	358	1,036	248	1,057	586	3,016	523	3,750	126	598
Copra.....	678	8,251	1,249	15,634	264	3,853	80	1,328	70	827
Oil cake:										
Bean.....	16,521	51,047	19,128	85,837	22,375	121,979	17,893	133,495	14,660	60,542
Cottonseed.....	480	1,756	777	3,795	1,176	7,185	829	6,107	529	2,315
Rape seed.....	749	2,683	445	1,868	599	3,341	681	5,241	208	765
Other.....	168	533	166	755	443	2,684	796	6,062	133	520

The oil cake brought into Japan is mostly soya bean cake, and is a by-product of the soya bean oil industry. The average annual import of soya bean cake for the four-year period 1912-1916 was 799,000 tons; for 1917-1921 the imports averaged 1,266,350 tons annually, an increase of nearly 60 per cent. This increase is due to the use of oil cake as a fertilizer and to a certain extent it displaced other commercial fertilizers which were difficult to procure during the war. The increased agricultural production also demanded more fertilizer, and the prosperous condition of the Japanese farmers enabled them to buy.

Imports of oil cake (fertilizer), 1913-1921.

VALUES.

(In thousands of yen.)

Imported from—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).	Per cent increase 1920 over 1913.
China.....	13,689	11,835	11,685	10,783	14,793	18,500	38,679	29,765	12,791	117
Kwantung.....	20,066	18,639	18,001	19,543	29,175	57,529	76,967	107,353	43,396	435
British India.....	1,914	1,269	512	667	801					
Asiatic Russia.....	118	344	1,712	665	1,635	408	26	15	194	87
Other countries.....	182	19				89	203	4,433	8	2,336
Temporary warehouses.....	3,530	2,758	4,267	5,889	9,564	15,729	19,314	9,340	5,752	164
Total.....	39,499	34,964	36,127	37,547	55,968	92,255	135,789	150,905	64,142	282
Average value, yen per picul.....	2.75	2.81	2.61	2.67	3.12	4.50	5.52	7.47	4.13	171

QUANTITIES.

(In thousands of piculs.)

Imported from—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
China.....	5,035	4,399	4,591	3,936	4,547	3,999	6,772	3,728	3,163
Kwantung.....	7,408	6,577	6,849	7,358	9,767	12,807	14,249	14,452	11,115
British India.....	747	478	209	262	260	8	(1)	(1)	(5)
Asiatic Russia.....	32	123	619	240	503	84	5	2	43
Other countries.....	87	6	2	181		14	34	560	2
Temporary warehouses.....	1,108	819	1,577	2,064	2,842	3,604	3,533	1,426	1,206
Total.....	14,387	12,402	13,847	14,041	17,919	20,516	24,593	20,198	15,529

¹ Not listed separately.

Copra, the dried meat of the coconut, is used in the production of coconut oil. Imports of this commodity increased in a striking manner through 1918, when values were 3,405 per cent greater than in 1913, but since 1918 there has been a decrease and in 1920 imports were only 198 per cent above the 1913 valuation. Quantities do not show so great an increase, and it will be noted when comparing value and quantity that value increased in a ratio of more than 2 to 1. The decrease in 1919 and 1920 is coincident with the return of a more normal market for copra, following the war period.

Exports of oils, etc.—The following table gives in detail the quantity of oils, fats, waxes, and manufactures thereof, exported from Japan during 1913-1920 and the first six months of 1921. The bulk of Japan's exports of vegetable oils are sent to the United States. The

large exports of soya bean oil in the year 1920 were abnormal, this being largely due to the attractively high prices in the United States; but some of this increase in exports is due to the fact that the industrial crisis was already under way in Japan and dealers were liquidating stocks wherever there was a market to be found. The depression in the market curtailed exports of all vegetable oils to the United States beginning about the middle of 1920. The period January-June, 1921, shows a very great decrease in the total export trade in this group of commodities.

Exports of oils, fats, waxes, and manufactures thereof, 1913-1921.

	Unit of quantity.	1913	1914	1915	1916	1917
Vegetable oils:						
Coconut.....	Thousand kin.					26,187
Soya bean.....	do.	1,421	1,798	1,790	5,914	5,526
Colza.....	do.	8,818	9,854	10,522	22,103	14,758
Cotton seed.....	do.					1,210
Peppermint.....	do.	282	278	311	361	290
Camphor.....	do.	1,961	1,367	2,313	1,972	1,714
Value, in thousands of yen.....	do.	2,969	2,727	4,168	5,839	13,577
Animal oils:						
Fish and whale oil.....	Thousand kin.	40,841	28,504	25,824	30,862	24,158
Value, in thousands of yen.....	do.	3,484	2,657	2,286	3,585	3,626
Mineral oils:						
Kerosene.....	Thousand gallons.					3,594
All other.....	Thousand kin.		2,744	6,130	37,350	11,032
Value, in thousands of yen.....	do.		147	349	2,886	3,141
Vegetable wax.....	Thousand kin.	4,731	4,435	4,932	6,308	4,976
Value, in thousands of yen.....	do.	1,028	1,040	1,164	1,736	1,566
Manufactures and preparations:						
Soaps—						
Toilet.....	Thousand dozen.	2,343	1,931	1,902	2,600	5,040
Washing.....	Thousand kin.	197	205	482	936	436
Value, in thousands of yen.....	do.	1,524	1,215	1,296	1,847	3,826
Toilet or perfumed waters and hair oil: Value, in thousands of yen.....	do.	559	390	381	776	996
All other oils, fats, waxes, etc., and manufactures of: Value, in thousands of yen.....	do.	400	223	552	5,200	2,242

	Unit of quantity.	1918	1919	1920	1921 (January-June).
Vegetable oils:					
Coconut.....	Thousand kin.	40,463	17,688	1,239	96
Soya bean.....	do.	4,923	2,920	15,689	16
Colza.....	do.	20,126	8,885	10,094	810
Cotton seed.....	do.	1,835	2,311	2,877	6
Peppermint.....	do.	215	409	314	90
Camphor.....	do.	1,371	1,031	2,342	391
All other.....	do.				140
Value, in thousands of yen.....	do.	23,833	13,722	12,832	617
Animal oils:					
Fish and whale oil.....	Thousand kin.	23,725	10,070	12,466	447
Value, in thousands of yen.....	do.	4,896	3,043	3,389	94
Mineral oils:					
Kerosene.....	Thousand gallons.	1,656	731	309	42
All other.....	Thousand kin.	10,978	15,657	7,055	2,957
Value, in thousands of yen.....	do.	3,587	4,035	1,841	586
Vegetable wax.....	Thousand kin.	8,924	1,649	730	324
Value, in thousands of yen.....	do.	3,109	726	346	290
Manufactures and preparations:					
Soaps—					
Toilet.....	Thousand dozen.	4,733	3,589	2,001	565
Washing.....	Thousand kin.	1,447	2,012	5,196	1,061
Value, in thousands of yen.....	do.	4,602	4,374	4,371	1,206
Toilet or perfumed waters and hair oil: Value, in thousands of yen.....	do.	1,163	1,004	1,044	323
All other oils, fats, waxes, etc., and manufactures of: Value, in thousands of yen.....	do.	4,614	8,548	9,512	276

Exports of colza (rapeseed) oil, 1913-1921.

[Values in thousands of yen.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
Kwantung.....	44	46	91	138	169	135	171	(1)	(1)
Great Britain.....	654	1,055	1,979	1,184	919	41	758	(1)	(1)
France.....			220	138	62	354	76	(1)	(1)
United States.....	37	83	334	2,082	2,597	6,156	1,947	(1)	(1)
Australia.....	112	155	201	140	147	284	221	(1)	(1)
Other countries.....	496	125	62	83	99	192	483	(1)	(1)
Total.....	1,343	1,464	2,896	3,765	3,993	7,162	3,656	3,791	249
Total quantity, in thousands of kin.....	8,818	9,854	19,522	22,103	14,758	20,125	8,885	10,094	810

¹ Not available.

Prior to the war, Great Britain was the principal market for colza (rapeseed) oil, but later the shipments to that country fluctuated, reaching a minimum in 1918. The exports to the United States have however, increased greatly, and since 1915 this country has afforded the principal market, the percentages of the total sent to the United States for the years 1916, 1917, 1918, and 1919 being respectively 55, 65, 86, 53. The record mark in value was reached in 1918 when the exports to the United States amounted to 6,156,000 yen. The year 1919 showed a marked decline in the amounts sent to this country, while those to England increased decidedly. It will be seen that in 1918 the total value of export trade in this commodity was 7,162,000 yen and the total quantity in kin was 20,125,000, while in 1916 the value was 3,765,000 yen, the quantity being 22,103,000 kin. In other words the quantity exported in 1916 and 1918 was very similar but the value in 1918 was nearly double that of 1916. The total value of exports for 1919 and 1920 are very similar and run about parallel with the years 1916 and 1917.

Exports of fish oil and whale oil, 1913-1921.

[Values in thousands of yen.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
Asiatic Russia.....	4	4	2	122	17	9	2	(1)	(1)
Great Britain.....	840	531	1,644	1,210	1,307	1,177	1,633	(1)	(1)
France.....	152	37	233	298	152	243	262	(1)	(1)
United States.....	23	84	51	1,264	1,736	2,640	290	(1)	(1)
Australia.....	174	195	233	373	299	617	40	(1)	(1)
Belgium.....	924	954					514	(1)	(1)
Germany.....	1,175	688						(1)	(1)
Other countries.....	192	164	73	118	115	210	302	(1)	(1)
Total.....	3,484	2,657	2,236	3,385	3,626	4,896	3,043	3,389	94
Total quantity, in thousands of kin.....	40,841	28,504	25,824	30,662	24,158	23,725	10,070	12,466	447

¹ Not available.

The leading markets for Japanese fish oil and whale oil during the years 1913 and 1914 were Germany, Belgium, and Great Britain. During the period 1916-1918, however, the United States afforded the

chief market. In 1917 this country purchased 48 per cent of the total and Great Britain 36 per cent; in 1918, 54 per cent was sent to the United States and 24 per cent to Great Britain. In 1919 England again became the principal buyer followed by Belgium with the United States in third place. It will be seen, however, that the increase has taken place only in values and the actual quantities exported steadily declined.

DRUGS, CHEMICALS, MEDICINES, AND EXPLOSIVES.

(Group VI of imports and Group V of exports.)

The Japanese trade in drugs, chemicals, medicines, and explosives has long held a rather important place in the country's trade—a place that is not completely reflected by the value of imports and exports, since such statistics do not represent the important position which these products take in the economic life of a nation.

As will be seen from the accompanying table the value of imports and exports of this group has been generally increasing since the pre-war period. Increases shown by total values alone are misleading, inasmuch as unit values, which in group tables can not always be conveniently shown, increased tremendously during the war period, and in nearly all instances quantities did not increase in the same ratios as did values.

The trade in this group of commodities, and also the place which it holds in respect to the total Japanese foreign commerce, is shown in the following table:

Trade in drugs, chemicals, medicines, and explosives, 1913–1921.

(Values in thousands of yen.)

Year.	Imports.		Exports. ¹		Year.	Imports.		Exports. ¹	
	Value.	Per cent of total import trade.	Value.	Per cent of total export trade.		Value.	Per cent of total import trade.	Value.	Per cent of total export trade.
1913.....	39,603	5.43	11,955	1.89	1918.....	77,983	4.70	45,917	2.36
1914.....	37,373	6.27	13,066	2.20	1919.....	122,637	5.64	40,179	1.93
1915.....	30,596	5.75	16,064	2.28	1920.....	140,907	6.08	40,532	2.27
1916.....	55,430	7.33	35,718	3.17	1921 (Jan.–June).	27,290	3.42	8,373	1.46
1917.....	64,957	6.27	41,286	2.58					

¹ Matches although officially included in the exports of this group are discussed in the *Miscellaneous* group.

Imports:		Per cent.	Exports:		Per cent.
Increase, 1917 as compared with 1913.....		64	Increase, 1917 as compared with 1913.....		245
Increase, 1918 as compared with 1913.....		97	Increase, 1918 as compared with 1913.....		354
Increase, 1920 as compared with 1913.....		256	Increase, 1920 as compared with 1913.....		239

IMPORTS.

Sulphate of ammonia.—The largest item in the pre-war imports of this group of commodities was sulphate of ammonia, which is brought into Japan principally for use as a fertilizer. In the year 1913 the value of this commodity imported constituted 40 per cent

of the total imports of this group, and in 1914, 41 per cent. The value of imports, which during 1913 and 1914 was over 15,000,000 yen yearly, fell to less than 3,000,000 yen in 1915, the decrease continuing through 1916, when the value was only slightly over 1,000,000 yen. During 1917 there was an increase to nearly 3,000,000 yen, but the year 1918 saw a tremendous decline, the total for the year being only 307,000 yen, or 2 per cent of the pre-war import. In 1919 the import of this commodity was valued at 27,000,000 yen, and the figures for 1920 show a decrease to 20,000,000 yen. The imports for the first six months of 1921 are very small, being less than 10 per cent of those for the year 1920. No mention is made of sulphate of ammonia in the export schedule of Japan.

The following table shows the value of imports of sulphate of ammonia with the countries of origin and also the total quantity and the value per picul:

Imports of sulphate of ammonia, crude, 1913-1921.

[Values in thousands of yen.]

Imported from—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
Kwantung.....	20	2	276	284	493	9	2,799	1,559	704
Great Britain.....	15,657	14,992	2,664	511	2,020	53	6,798	6,985	183
Australia.....	256	72	.....	234	272	245	492	163	33
United States.....	.....	.....	.....	.....	20	.....	17,269	10,994	98
Other countries.....	59	79	.....	170	78	.....	77	175	.....
Total.....	15,992	15,145	2,940	1,199	2,863	307	27,435	19,876	1,018
Total quantity, in thousands of piculs.....	1,859	1,761	332	119	252	18	1,967	1,202	90
Average value, yen per picul.	8.6	8.6	8.9	10.0	11.4	17.1	13.9	16.5	11.3

It will be seen that while the total value of this commodity imported in 1919 showed an increase of 71.5 per cent over that for the year 1913 a comparison of the quantities imported during the same years shows an increase of only 5.7 per cent.

In the pre-war period Great Britain was the principal country of origin, as is indicated in the above table. This is accounted for by the fact that Great Britain was the only large producer with an exportable surplus of this product, the ammonia sulphate being a by-product of illuminating gas works using the coal-gas process. The drop in imports of this commodity during the period 1915-1918 is explained by the embargo which Great Britain placed upon its export and the demand for this product to be used (in ammonium nitrate) for explosive purposes. Sixty-two per cent of the imports in 1919 and 55 per cent in 1920 came from the United States, where the production increased from 173,000,000 pounds in 1913 to 545,000,000 pounds in 1919.

India rubber, crude.—The value of the imports of crude india rubber and gutta-percha makes up the second largest item in the imports of this group. The raw material is imported into Japan principally for further manufacture, there having been a very marked growth in the production of rubber goods in Japan. The imports increased from 2,011,000 kin in 1913 to 18,099,000 kin in 1919, while

the total for the first six months of 1921 was 18,418,000 kin, which is more than the imports in any entire previous year and is indicative of the advancing demand for this raw material.

The value of these imports with the countries of origin and the total quantity in thousands of kin are shown in the following table:

Imports of india rubber and gutta percha, crude, 1913-1921.

[Values in thousands of yen.]

Imported from—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June)
Straits Settlements.....	1,771	1,357	1,727	4,968	6,285	11,876	15,873	8,852	8,268
British India.....	479	447	941	1,487	1,977	468	413	2,900	705
Dutch East Indies.....	18	3	226	165	89				
Great Britain.....	818	319	394	490	534	253	716	1,081	25
United States.....	200	16	118	135	202	182	303	155	
Other countries.....	166	5	26	11	43	189	60	373	68
Total.....	3,452	2,147	3,432	7,248	9,130	12,948	17,364	13,422	9,068
Total quantity in thousands of kin.....	2,011	1,730	2,928	4,974	6,296	12,271	18,099	10,186	18,418
Percentage supplied by Straits Settlements.....	51	63	50	69	69	92	91	66	91

A large percentage of the world's supply of India rubber comes from the plantations in the Malay Peninsula, Singapore being the principal port of shipment. As the table indicates, the Straits Settlements supply the largest proportion of imports, 51, 69, and 91 per cent for the respective years 1913, 1916, and 1919. During the past few years the imports from British India have shown considerable increase.

Nitrate of soda, crude.—The principal importations of nitrate of soda to Japan come from Chile, which is the world's source of supply for this product. This commodity is used largely as a fertilizer in normal times, but as was the case of many other chemicals it was in demand during the war for the making of explosives. The following table shows imports of nitrate of soda in quantity and value, and also the value of imports of this commodity from Chile compared with the total:

Imports of nitrate of soda, 1913-1921.

[Quantities in thousands of kin; values in thousands of yen.]

Year.	Total imports.			Imports from Chile.	
	Quantity.	Value.	Average value, yen per kin.	Value.	Per cent of total imports.
1913.....	44,543	2,911	0.06	2,773	95.25
1914.....	40,709	2,624	.06	2,607	99.35
1915.....	50,352	3,289	.06	2,995	92.47
1916.....	76,702	6,185	.08	6,062	98.00
1917.....	91,610	9,725	.11	9,699	99.75
1918.....	81,509	11,286	.14	11,242	99.53
1919.....	109,510	13,838	.13	13,766	99.50
1920.....	204,278	24,746	.12	24,510	99.05
1921 (January-June).....	8,481	364	.11	346	35.07

With the exception of one year, since 1913 Chile has supplied more than 95 per cent of the Japanese imports. The value of this commodity has increased from 0.06 yen per kin in 1913 to 0.14 yen in 1918, and the average value for the first six months of 1921 is shown to be 0.11 yen per kin.

The manufacture of nitrogenous fertilizer materials by the electro-chemical process was developed to some extent in Japan during the war. A continued development of these atmospheric nitrogen fixation processes will be reflected in a decrease in imports of nitrate of soda.

Caustic soda and soda ash.—The two alkalis, caustic soda and soda ash, are two of the most important sodium compounds, and have a prominent place in the imports of chemicals. The figures for the value of imports from 1913 to 1920, inclusive, and for the first six months of 1921 are shown in the following tables:

Imports of crude caustic soda, 1913–1921.

[Values in thousands of yen.]

Imported from—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January–June).
Great Britain.....	1,299	1,232	834	436	52	101	1,679	(1)	(1)
United States.....	14	117	373	2,489	6,353	3,031	5,800	(1)	(1)
Other countries.....	2	7	49	14	4	125	4	(1)	(1)
Total.....	1,315	1,416	1,256	2,839	6,409	3,257	7,483	5,429	241
Total quantity in thousands of kin.....	20,268	23,049	18,087	15,906	36,195	12,361	60,090	43,916	1,867
Value, yen per kin.....	.06	.06	.07	.18	.18	.26	.12	.12	.13
Per cent (value) supplied by Great Britain.....	98.77	91.26	66.39	14.82	.81	3.00	22.00	.....	.....
Per cent (value) supplied by United States.....	1.09	8.25	29.65	84.68	99.13	93.00	77.00	.....	.....

¹ Data by countries not available.

Imports of soda ash, 1913–1921.

[Values in thousands of yen.]

Imported from—	1913	1914	1915	1916	1917	1918	1919	1920 ¹	1921 ¹ (January–June).
Kwantung.....	.....	27	11	511	72	.....	50	.....	.....
Great Britain.....	1,450	1,485	1,398	2,937	1,891	3,043	3,881	5,264	562
United States.....	.....	45	54	71	4,887	8,342	3,105	5,672	400
Other countries.....	.....	.....	.....	179	114	20	1	693	156
Total.....	1,450	1,557	1,463	3,698	6,964	11,405	7,037	11,629	1,118
Total quantity in thousands of kin.....	51,802	54,935	51,071	64,014	74,133	93,863	89,430	102,863	16,514
Per cent (value) supplied by Great Britain.....	99.97	95.36	95.56	79.41	27.15	27.00	55.00	.....	.....

¹ Includes imports of caustic soda and soda ash, the distribution of the individual commodities not being available for 1920 and January–June, 1921.

These two commodities are discussed together, since for many uses either is suitable. They are used principally in the manufacture of glass, soap, wood pulp, and paper, as well as in the manu-

facture of dyes and drugs. As will be seen from the accompanying tables, the imports from Great Britain, which supplied over 98 per cent in 1913, have decreased, until in 1919 her share of these combined imports amounted to less than 30 per cent, while the United States, supplying only 0.51 per cent in 1913, in 1919 furnished 60 per cent. In the latter year 45 per cent of the total exports of caustic soda and 19 per cent of the exports of soda ash from the United States went to Japan. It is evident from the table, however, that Great Britain is resuming her position as an important source of these imports.

A summary survey of the Japanese import trade in drugs, chemicals, medicines, and explosives, from the year 1913 to June 30, 1921, is shown in the table on the following page:

Imports of certain drugs, chemicals, medicines, and explosives, 1913 and 1917-1921.

[Values in thousands of yens.]

	Values.						Principal country of origin.			
	1913	1917	1918	1919	1920	1921 (January-June.)	1913	1917	1918	1919
Hops.....	290	498	461	1,070	1,710	652	Germany.....	Russia.....	United States.....	United States.
Liquorice.....	90	261	307	506	452	193	China.....	China.....	China.....	Kwantung.
Tanning materials.....	113	508	1,072	2,068	1,101	474	United States.....	Natal and Cape Colony.	Cape Colony and Natal.	Cape Colony and Natal.
Tanning extracts.....	517	1,155	1,659	990	2,961	663	Dutch East Indies.....	Straits Settlements.....	Argentina.....	Dutch East Indies.
India rubber, crude.....	3,452	9,130	12,048	17,364	13,422	9,067	Straits Settlements.....	do.....	Straits Settlements.....	Straits Settlements.
Gum arabic.....	3,96	87	109	452	212	103	Germany.....	British India.....	British India.....	Egypt.
Gum shellac.....	175	1,094	1,856	764	1,367	1,081	British India.....	do.....	do.....	British India.
Resin.....	968	1,967	2,327	2,616	5,890	296	United States.....	United States.....	United States.....	United States.
Gums, other.....	198	1,198	327	435	529	338	Germany.....	Straits Settlements.....	Straits Settlements.....	Dutch East Indies.
Glue.....	490	358	422	896	1,519	309	France.....	Great Britain.....	Great Britain.....	Great Britain.
Phosphorous, red.....	400	247	127	124	107	128	France.....	do.....	do.....	do.
Boric acid.....	147	220	341	386	463	277	Germany.....	Great Britain.....	Great Britain.....	United States.
Tartaric acid.....	179	420	357	105	1,615	128	Great Britain.....	do.....	Italy.....	Great Britain.
Salicylic acid.....	148	196	1,238	654	395	70	Germany.....	United States.....	United States.....	United States.
Carbolic acid.....	251	4,749	3,106	4,337	3,634	544	do.....	do.....	do.....	do.
Caustic soda, crude.....	1,315	6,409	3,266	7,483	5,429	241	Great Britain.....	do.....	do.....	do.
Soda ash.....	1,450	6,964	11,405	7,036	6,199	877	do.....	do.....	do.....	do.
Peroxide of soda.....	137	62	18	42	164	164	France.....	Great Britain.....	Italy.....	Great Britain.
Nitrate of soda, crude.....	2,911	9,725	11,294	13,837	24,745	364	Chile.....	Chile.....	Chile.....	Chile.
Borate of soda.....	109	556	1,448	473	1,444	37	Great Britain.....	Great Britain.....	Great Britain.....	United States.
Cyanide of soda.....	324	1,098	707	285	285	66	Germany.....	China.....	China.....	Great Britain.
Nitrate of potash.....	127	52	364	495	2,355	152	do.....	France.....	France.....	United States.
Chlorate of potash.....	1,052	155	64	166	3,875	180	Great Britain.....	Great Britain.....	Australia.....	Great Britain.
Sulphate of ammonium.....	15,992	2,863	307	27,435	19,875	1,018	United States.....	United States.....	United States.....	United States.
Acetate of calcium.....	553	62	214	966	1,216	100	Great Britain.....	Great Britain.....	do.....	do.
Glycerin.....	652	557	601	3,458	1,431	76	Germany.....	United States.....	do.....	do.
Milk sugar.....	111	32	556	608	539	29	do.....	Great Britain.....	do.....	do.
Antifebrin.....	121	290	255	432	361	80	Germany.....	do.....	France.....	Switzerland.
Antipyrin.....	140	91	145	298	361	242	do.....	France.....	Russia.....	Russia.
Santonin.....	160	103	217	168	52	565	do.....	Russia.....	Russia.....	Dutch East Indies.
Quinine.....	97	572	569	482	185	185	Dutch East Indies.....	Dutch East Indies.....	Dutch East Indies.....	Dutch East Indies.
Morphine.....	487	5,078	3,479	7,118	12,305	1,787	Great Britain.....	Great Britain.....	Great Britain.....	United States.
Cocaine.....	167	955	827	749	1,948	486	Germany.....	United States.....	Great Britain.....	do.
Alcoholic preparations.....	97	165	271	443	620	279	Great Britain.....	Great Britain.....	Great Britain.....	Great Britain.
Tooth powder.....	102	94	123	347	526	217	France.....	France.....	United States.....	United States.
All other chemicals.....	3,345	4,902	9,752	11,652	17,718	3,287	Germany.....	United States.....	do.....	do.
All other compounds.....	348	493	1,137	1,480	1,893	74	do.....	do.....	do.....	do.
Dynamite.....	650	1,158	2,473	1,075	866	111	do.....	do.....	do.....	do.
Explosives (other).....	95	24	14	72	162	111	do.....	Great Britain.....	United States.....	Great Britain.

Principal countries of origin in 1920 and 1921 are not available, except as shown in footnotes following:

* Chile.

* United States.

* Kwantung.

It is evident that this trade has had an immense growth since the pre-war period. As stated previously sulphate of ammonium, india rubber, nitrate of soda, caustic soda, and soda ash are the largest items, but these articles have not seen the phenomenal increase that has taken place in several of the commodities of this group. The principal drugs which have shown a greatly increased importation are cocaine and morphine, the latter increasing in value from 487,000 yen in 1913 to 12,305,000 yen in 1920. Resin and gum shellac are also among the commodities showing large increase in importation since 1913, while the trade in antifebrin and cyanide of soda, not shown separately prior to the war, reached considerable proportions, but more recently has declined seriously.

Unit values of all articles in this group increased during the war and the trade in all the commodities was greatly affected by war-time requisition of shipping and the embargoes which nations placed upon exportation. With the falling off of exports from Germany the imports from the United States became especially prominent.

EXPORTS.

Menthol.—Menthol, used almost exclusively in medicinal preparations, is one of the most important in value of the export articles in this group. It is obtained from peppermint oil. Although the United States produces about half of the world's supply of peppermint, this country is one of the largest importers of Japanese menthol. This is explained by the fact that the United States peppermint oil contains less menthol than the Japanese product. The peppermint oil produced in this country is in great demand for flavoring and is only converted into menthol when the price for the oil is comparatively low. The Japanese production¹ of menthol has increased rapidly from 257,000 pounds in 1913 to 436,000 pounds in 1919, the banner year having been 1915, with a production of 497,000 pounds.

The following table shows the value of exports of menthol by countries, the total quantity, and the average value per kin:

Exports of menthol, 1913-1921.

[Values in thousands of yen.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920 ^a	1921 (January-June)
British India.....	152	106	156	179	107	182	125	.....	.....
Great Britain.....	767	276	341	919	413	729	514	.....	.....
France.....	358	120	231	422	18	22	111	.....	.....
United States.....	479	625	936	812	930	485	1,682	.....	.....
Other countries.....	1,117	689	141	79	126	126	115	.....	.....
Total.....	2,873	1,816	1,805	2,411	1,594	1,544	2,547	5,490	.....
Total quantity in thousands of kin.....	233	269	325	386	251	237	240	370	18
Average value, yen per kin.....	12.33	6.75	5.55	6.24	6.35	6.52	10.61	14.84	0.0
Per cent exported to United States.....	16.67	34.41	51.85	33.68	58.34	31.41	66.04	.....	.....

¹ Tariff Information Survey A-10, U. S. Tariff Commission, 1921, p. 56.

^a Data not available by countries.

This commodity dropped materially in unit value during the war, followed by an equally marked rise after the close of hostilities. The average value of exports in 1913 of 12.33 yen per kin fell to a minimum of 5.55 in 1915. This decline was due partly at least to an abundant peppermint crop and to the elimination of Germany and Austria from the world market. Later the market, influenced by the demand during the influenza epidemic and continued buying thereafter in anticipation of a recurrence of the disease, rose steadily.

Camphor.—This is one of the most important of the subsidiary forest products of Japan, which holds a unique position in this trade in that Japan proper and Formosa supply much the greater part of the consumption of the world. This industry in Japan is monopolistic, being controlled by the Government which fixes the price and allocates the product to the various countries. The following table shows the value of the exports of this commodity and the principal countries to which it is exported.

Exports of camphor, 1913-1921.

[Values in thousands of yen.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
British India.....	831	825	1,255	1,560	1,956	811	381	1,998	215
United States.....	434	696	890	3,125	2,440	1,108	5,772	1,299	145
Australia.....	102	104	156	89	191	229	5	126	54
Great Britain.....	138	333	284	594	241	767	836	655	121
Germany.....	427	261							
All other countries.....	304	561	890	920	476	771	890	887	117
Total.....	2,236	2,780	3,475	6,288	5,304	3,686	7,884	4,965	652
Total quantity in thousands of kin.....	2,478	3,074	3,880	5,754	3,120	1,764	2,031	1,034	320
Average value, yen per kin.....	0.90	0.90	0.90	1.09	1.70	2.09	3.88	4.80	2.04
Per cent (value) exported to United States.....	19.41	25.04	25.61	49.69	46.00	30.00	73.00	26.00	22.00

Per cent.

Increase in value 1919 compared with 1913..... 253
 Decrease in quantity 1919 compared with 1913..... 18

About 80 per cent of the camphor consumed in the United States is used in the manufacture of celluloid, the remainder being utilized for various pharmaceutical and medicinal preparations, and as an insecticide. Attempts have been made to grow camphor trees in the United States (in Florida) but with little or no success. During the war synthetic camphor from turpentine was produced in the United States in considerable quantities, but a later decrease in the price of natural camphor made the manufacture of the synthetic product unprofitable. The value of exports in 1919 as compared with 1913 shows an increase of 253 per cent, whereas a comparison of quantity for these two periods shows an increase of only 18 per cent. The countries of export have also changed during this period, British India taking 37 per cent in 1913 and the United States 19, whereas in 1919, 73 per cent was shipped to the United States. During the first six months of 1921 British India has again taken the leading place.

Sulphur.—In 1913 Japan was the fourth largest producer of sulphur in the world, but advanced during the war to third place. The growth of Japan's output of this commodity was due to the increased war demand, made more intense by the simultaneous decrease in the Italian production. During this same period the United States has taken first place in the production of sulphur, and consequently the exports of this commodity from Japan to the United States have practically ceased. The increase in exports in 1916 and 1917 represent shipments principally to Australia and British India with a considerable amount to Asiatic Russia. Although the price of sulphur rose in the United States market, while under Government control, later it decreased. This has not been the case in Japan since the export unit value per kin increased from 0.02 yen in 1913 to a peak price of 0.06 yen during the first six months of 1921.

The following table shows the value of sulphur exported from Japan, and the principal countries to which exported, together with the total quantity in kin and the average value:

Exports of sulphur, 1913-1921.

[Values in thousands of yen.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920 ¹	1921 (January-June) ¹
British India.....	46	36	177	283	1,082	690	469	.....	.....
Dutch East Indies.....	12	99	26	142	632	169	246	.....	.....
Asiatic Russia.....	1	11	182	2,725	319	.....	2	.....	.....
United States.....	847	735	967	1,200	83	15	7	.....	.....
Canada.....	81	67	168	260	72	.....	.....	.....	.....
Australia.....	856	776	869	1,255	3,028	2,106	695	.....	.....
New Zealand.....	.....	.....	.....	100	163	42	111	.....	.....
Other countries.....	138	122	99	251	754	547	505	.....	.....
Total.....	1,981	1,846	2,488	6,216	6,143	3,569	2,035	1,799	236
Total quantity in thousands of kin.....	90,427	85,947	124,790	137,812	142,410	90,162	47,781	32,811	3,973
Average value, yen per kin..	0.02	0.02	0.02	0.05	0.04	0.04	0.04	0.05	0.06

¹ Not available by countries.

	Per cent.
Decrease in quantity, 1918, compared with 1913.....	0.3
Increase in value, 1918, compared with 1913.....	80.0

Other chemicals, drugs, and medicines.—Many other chemicals, drugs, and medicines besides those discussed above were exported from Japan in 1913 and certain others, not mentioned in the 1913 returns, have come into prominence during the war period. The following table shows the exports of the various other chemicals, drugs, and medicines included in this group:

Exports of miscellaneous chemicals, drugs, and medicines, 1913 and 1917-1921.

[Values in thousands of yen.]

	1913	1917	1918	1919	1920	1921 (January-June).
Ginseng.....	405	608	652	349	630	368
Dried plants for insectifuge.....	115	1,116	985	3,327	2,554	238
Iodine.....	130	331	407	127	91	42
Sulphuric acid.....	106	504	408	436	706	158
Iodide of potash.....	324	1,040	1,156	651	187	70
Menthol cane.....	105	170	280	230	311	138
Insect powder.....	81	338	411	607	903	226
Tooth powder and paste.....	240	427	663	664	425	152
Toilet powder.....	118	284	355	405	404	115
Other prepared perfumeries.....	212	279	439	749	819	275
Prepared medicines.....	1,663	1,606	1,915	1,851	1,316	621
Acetic acid.....		3,513	3,600	2,464	1,445	30
Copper sulphate.....		786	706	322	38	8
Chlorate of potash.....		2,384	2,729	1,396	791	271
Zinc dust.....		551	408	82	116	.....
Calcium carbide.....		854	5,476	525	290	142
Gauze wadding and bandages.....		1,011	1,183	2,276	704	152
Explosives.....		626	666	716	138	124
Kaki and other tanning extracts.....		527	80	26	38	.....
Bleaching powder.....	136	1,486	1,328	544	868	443

In 1913 Japan was importing chlorate of potash in considerable amounts, but during the past few years she has been an exporter of this chemical, the source of supply being from kelp.

Acetic acid, a product of the wood distillation industry which was established during the war in Japan, reached an output in 1918 of 9,656,000 pounds. The exports in the same year were about 4,701,000 pounds, or one-half of the production. Exports have been chiefly to the Straits Settlements, where it is used on the rubber plantations for coagulating milk rubber.

Gauze wadding and bandages, another relatively large item in the exports of this group during and immediately following the war, is the result of the war-time demand for these materials, and, as will be seen from the preceding table, the exports of these articles have decreased greatly since 1919.

The manufacture of sulphuric acid, an old industry in Japan, increased substantially during the war and now exceeds the home demand, the excess going to China and India. This is the most important and widely used chemical and is a good index of the industrial development and progress in Japan.

Considerable advance has also been made in the manufacture of glycerine, commercial oxygen, phosphorus, calcium carbide, and ammonium sulphate. In Japan, prior to the war, the electrochemical process was used in the manufacture of copper, calcium carbide, and nitrogenous fertilizer materials only, but during the war this process was applied to the zinc, aluminum, gold and silver, steel, phosphorus, sodium peroxide industries, and others of minor importance, such as the manufacture of caustic soda and bleaching powder.

DYES, PIGMENTS, COATINGS, AND FILLING MATTERS.

(Group VII of imports and Group VI of exports.)

The export trade in dyes, pigments, coating, and filling matters was not grouped separately previous to 1915, but the small amount of the exports of these articles was included under Group VI. The trade in the commodities comprising this group is shown in the following table, for the years 1913-1921:

Trade, in dyes, pigments, coatings, and filling matters, 1913-1921.

[Values in thousands of yen.]

Year.	Imports.		Exports.	
	Value.	Per cent of total import trade.	Value.	Per cent of total export trade.
1913.....	11,343	1.56	497	0.08
1914.....	8,081	1.26	475	.08
1915.....	7,373	1.38	2,044	.29
1916.....	8,482	1.12	5,583	.30
1917.....	9,300	.90	6,584	.41
1918.....	22,002	1.32	13,283	.67
1919.....	24,145	1.11	9,278	.44
1920.....	34,442	1.47	8,796	.45
1921 (January-June).....	13,218	2.88	2,569	.45

Commerce in this group of commodities has never been large when compared with the total import and export trade. Imports have averaged about 1.5 per cent of the total import trade while exports have increased since 1913, when they constituted only about 0.08 per cent of the total export trade, to 0.67 per cent in 1918; since then there has been an appreciable decline but the percentages are still well above those of earlier years. The trade in this group of articles has shown an increase principally in value rather than amount, due to war-time demands and conditions. The industries which have been developed in connection with trade in this class of articles will be discussed under the head of exports.

IMPORTS.

Imports of natural dyes, pigments, coatings, etc., 1913, 1917-1921.

[Values in thousands of yen.]

	1913	1917	1918	1919	1920	1921 (Jan.-June).
Indigo, dry, natural.....	35	282	3,926	5,498	7,870	2,433
Logwood extract.....	135	1,103	1,999	581	1,071	435
Oxide of cobalt.....	66	282	381	511	513	52
White zinc.....		10	52	42	29	
Carbon black.....	57	177	534	314	384	224
Liquid gold, liquid silver.....	275	143	188	70	10	
Ultramarine blue.....	55	54	112	121	101	
White lead, red lead.....	16	5	5	32	36	
Artist's colors and artist's paints.....	67					
Ship's bottom paints.....	154	188	154	299	401	151
Other paints.....	291	143	89	136	200	81
Lacquer.....	670	933	1,362	2,549	3,069	1,079
Varnish.....	223	314	150	432	312	269
Pitch and asphalt.....	59	117	123	166	343	275
Shoe polishes.....	63	53	29	102	158	
Pencils cased with wood or paper.....	365	89	111	148	288	
Ink for copying or writing.....	46					
Ink for printing.....	116	130	208	301	238	100
Other inks.....		22	45	91	84	
All other dyes and pigments.....	521	537	1,110	1,055	1,182	850
All other coatings and filling matters.....	183	169	185	208	325	229

Imports of natural dyes, pigments, coating, etc.—Continued.

PRINCIPAL COUNTRIES OF ORIGIN.

	1913	1917	1918	1919
Indigo, dry, natural.....	British India...	British India...	British India...	British India.
Logwood extract.....	France.....	United States...	United States...	United States.
Oxide of cobalt.....	Great Britain...	Great Britain...	do.....	Do.
White zinc.....	do.....	do.....	China.....	China.
Carbon black.....	United States...	United States...	United States...	United States.
Liquid gold, liquid silver.....	Germany.....	do.....	do.....	Do.
Ultramarine blue.....	do.....	do.....	do.....	Do.
White lead, red lead.....	Great Britain...	do.....	do.....	Great Britain.
Artist's colors and artists' paints.....	do.....	Great Britain...	Great Britain...	Great Britain.
Ship's bottom paints.....	do.....	do.....	Great Britain...	Great Britain.
Other paints.....	China.....	China.....	United States...	United States.
Lacquer.....	China.....	China.....	China.....	China.
Varnish.....	Great Britain...	United States...	United States...	United States.
Pitch and asphalt.....	United States...	do.....	do.....	Do.
Shoe polishes.....	Great Britain...	Great Britain...	Great Britain...	Do.
Pencils cased with wood or paper.....	Germany.....	United States...	United States...	Do.
Ink for copying or writing.....	Great Britain...	do.....	do.....	do.....
Ink for printing.....	United States...	United States...	United States...	United States.
Other inks.....	do.....	do.....	Great Britain...	Great Britain.
All other dyes and pigments.....	Germany.....	Great Britain...	United States...	United States.
All other coatings and filling matters.....	Great Britain...	United States...	do.....	Do.

As will be seen from the preceding table, there was a general though not a very radical increase in the importation of natural pigments and coatings during the period 1913-1917. After the latter year there are no very significant changes, the principal increases being in the value of indigo and lacquer imports. A considerable part of this increase is due though to greater unit values rather than greater quantities. A study of the principal countries of origin shows that in many instances the sources of imports have changed since 1913. In that year nine of these articles were imported principally from Great Britain, four from Germany, three from the United States, and the remainder from France, British India, and China, while in 1919 only three came chiefly from Great Britain, thirteen from the United States, and the remainder from British India and China.

Coal-tar dyes.—This group of dyes, most of which were imported from Germany previous to the war, constitute usually, though not always, 50 per cent or more of the total imports in this group. The trade decreased materially during the early years of the war, but later increased, as will be seen from the table below:

Imports of coal-tar dyes, 1913-1921.

[Values in thousands of yen.]

Imported from—	1913	1914	1915	1916	1917	1918	1919	1920 ¹	1921 (January-June), ¹
United States.....				36	1,757	7,238	8,314		
Germany.....	6,996	4,544	2,382	2,789	1,898	3,105	216		
Switzerland.....	561	457	93	220	605	536	1,755		
Other countries.....	201	171	456	393	287	359	1,198		
Total.....	7,758	5,172	2,931	3,438	4,547	11,238	11,483	17,725	7,018

¹ Imports by countries not available for 1920 and 1921.

Imports of coal-tar dyes, 1913-1921—Continued.
PER CENT DISTRIBUTION.

Imported from—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June)
United States.....				1.05	38.64	64.00	72.00		
Germany.....	90.18	87.42	81.27	81.13	41.74	28.00	2.00		
Switzerland.....	7.23	8.80	3.17	6.39	13.34	5.00	15.00		
Other countries.....	2.59	3.78	15.56	11.43	6.28	3.00	11.00		
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00		
Total quantity in thousands of kin.....	9,175	6,174	1,463	541	642	1,942	2,190	3,676	1,756
Average value, yen per kin.....	0.85	0.84	2.00	6.35	7.08	5.78	5.24	4.82	4.00
Percentage imports of coal-tar dyes are of total import trade.....	1.07	.87	.54	.45	.44	.58	.53	.76	.88

The preceding table shows that the imports from Germany continued during the period of hostilities, this fact being explained by the withdrawal of German stocks deposited in Japanese warehouses prior to the war. In 1918 and 1919, the last year for which data are available, the United States was the principal source of these imports.

EXPORTS.

As noted previously, exports of dyes, pigments, coatings, and fillings were not shown in a separate group prior to 1915, but certain of the items were exported to a small extent at that time.

The following table shows the exports of the articles in the group for selected years:

Exports of dyes, pigments, coatings, and filling matters, 1913-1921.

[Quantities in thousands of kin ; values in thousands of yen.]

	1913		1917		1918	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Metal powder.....			631	793	417	463
Red lead.....			1,433	448	3,475	1,329
Coal tar and pitch.....			20,472	635	14,662	574
Shoe polishes.....			283	161	364	227
Pencils.....			1,817	2,104	1,293	2,046
Inks.....	385	124	823	457	1,052	773
Paints.....	359	71	1,830	505	11,366	4,331

	1919		1920		1921 (January-June)	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Metal powder.....	295	291	254	255	103	85
Red lead.....	1,069	345	908	273	268	81
Coal tar and pitch.....	4,620	253	8,498	459	794	50
Shoe polishes.....	261	212	251	192	131	
Pencils.....	1,623	1,143	1,248	576		72
Inks.....	849	638	513	444	241	214
Paints.....	2,885	1,115	1,620	668	479	191

¹ Pencils, in thousands of gross.

It will be noted that in 1917 the value of metal powder, coal tar and pitch, red lead, and shoe polishes, exports of which were not shown separately in 1913, were of considerable value. Paint, on the whole, constitutes the largest item in the group, and other articles of importance are pencils, coal tar and pitch, and metal powder. Japan's production of pencils has very materially increased and there is now a supply to meet local demands and a surplus for export.

The coal-tar industry in Japan, begun more than twenty years ago by the Tokyo Gas Co., had very little development until the war-time demand for its products was felt. In 1915 the Government interested itself in the industry and guaranteed 8 per cent dividends for ten years to the companies engaged in the business. In 1920 a tariff act was passed materially increasing the duty on aniline dyes. This act provides for a 35 per cent ad valorem duty on coal tar dyes. Except artificial indigo, which pays a duty of 20 per cent ad valorem. In 1918 Japan was producing 80 different kinds of dyes and the value of production in that year was about 23,000,000 yen. The sulphur, basic, direct, and acid dyes are produced in fair variety and considerable quantity. Mordant dyes, on the other hand, are manufactured in smaller quantity and variety. Certain dyes, such as sulphur black and methyl violet are produced in quantities in excess of Japan's domestic requirements, while other more complex dyes, such as indigo, are either produced in insufficient amounts or not at all. As has been previously stated Japan is producing nitric, sulphuric, muriatic, and acetic acids sufficient for her use in dye making. The alkalis, caustic soda, soda ash, and ammonia are now produced in considerable quantities. The production of these and other associated chemicals together with most of the subsidiary agents used in dye making assure Japan a source of raw material for her dye industry.

TEXTILES.

Japanese statistics group the imports and exports of textile materials and products as follows:

1. Yarns, threads, twines, cordages, etc., and materials thereof, (included in Group VIII of imports and Group VII of exports), comprising most of the raw and semi-manufactured products generally considered in textile groups.

2. Tissues and manufactures, not including clothing and accessories thereof (included in Group IX of imports and Group VIII of exports), consisting chiefly of wool tissues, cotton tissues (commonly termed piece goods), and habutae.

3. Clothing and accessories (included in Group X of imports and Group IX of exports). This group includes under accessories knit goods, buttons, hats, and shoes.

The separate groups as outlined above are discussed individually in the sections which follow, but it seems advisable to combine Groups VIII, IX, and X of imports and Groups VII, VIII, and IX of exports in preliminary tables in order to give a comprehensive survey of Japanese trade in textiles. These groups, as previously outlined include the Japanese commerce in all raw, semi-manufactured, and manufactured textile materials.

Although the trade in textiles has always loomed large in the total trade of Japan, an analysis shows that textile imports are not made up of scattered commodities principally, but rather of one item, namely, raw cotton. Exports, however, are distributed over a larger number of commodities, but even in this instance there are three items or groups of items which comprise most of the export trade in textiles. These principal articles are raw silk, cotton yarns and tissues, and silk yarns and tissues, in the order named. The growing exports of yarns and tissues indicate that Japan is steadily increasing her domestic manufacturing facilities, thereby consuming her increased imports of raw cotton and the surplus remaining from her relatively decreased exports of raw silk.

IMPORTS.

The importance of textile imports in relation to the total import trade of Japan and the percentage which cotton, wool, and wool tissue imports bear to the textiles imported may be ascertained from a study of the following table:

Imports of textiles, 1913, 1919, and 1921.

[Values in thousands of yen.]

Textiles.	1913			1919			1921 (January-June).		
	Value.	Per cent of total textiles.	Per cent of total import trade.	Value.	Per cent of total textiles.	Per cent of total import trade.	Value.	Per cent of total textiles.	Per cent of total import trade.
Raw cotton.....	233,599	78.1	32.0	667,867	82.3	30.7	219,249	78.9	27.4
Raw wool and wool tops.....	15,998	5.4	2.2	61,304	7.6	2.8	15,017	5.4	1.8
Wool tissues.....	12,445	4.2	1.7	12,301	1.5	.6	12,845	4.6	1.6
All other textiles.....	36,904	12.3	5.0	69,979	8.6	3.5	30,427	11.1	3.9
Total.....	298,946	100.0	40.9	811,511	100.0	37.3	277,538	100.0	34.7

Textile imports made up 41 per cent of the total import trade in 1913, 37 per cent in 1919, and 35 per cent during the first six months of 1921. Raw cotton has consistently been the principal item in this group of imports, making up over 78 per cent of the total textile imports, while raw wool and wool tops made up over 5 per cent. Raw cotton constituted 32 per cent of the total Japanese imports in 1913, decreasing somewhat, however, in 1919 and the first six months of 1921. While the raw cotton trade is discussed in more detail later, it may be well to state here that Japan has depended upon British India and the United States as her two principal sources of supply. The cotton imported from the United States is of the better grade and is, therefore, of somewhat higher average in unit value. In quantity, the proportion supplied by the United States has increased from 26 per cent of the imports in 1913 to 42 per cent in 1920, while during this same period British India's share had decreased from 60 per cent to 54 per cent. The latter figure represents an increase of 8 per cent over similar figures for 1919.

EXPORTS.

While this trade is also later discussed in detail and in accordance with the groupings found in the Japanese statistics, the table which follows gives a summary view of the Japanese export trade in textiles and the relation which this trade bears to the total export trade.

Exports of textiles, 1913, 1919, and 1921.

[Values in thousands of yen.]

Textiles.	1913			1919			1921 (January-June).		
	Value.	Per cent of total textile exports.	Per cent of total export trade.	Value.	Per cent of total textile exports.	Per cent of total export trade.	Value.	Per cent of total textile exports.	Per cent of total export trade.
Raw silk	188,917	48.3	29.9	623,619	44.8	29.7	153,930	39.0	26.8
Cotton yarns and tissues ..	104,601	26.8	16.5	394,543	28.3	18.8	163,233	41.3	28.5
Silk yarns and tissues	41,569	10.6	6.6	165,164	11.9	7.9	43,819	11.1	7.6
Shirts, underwear, etc	10,862	2.8	1.7	39,071	1.4	1.9	5,463	1.4	.9
All other textiles	44,979	11.5	7.1	170,647	13.6	8.1	28,274	7.2	5.0
Total	390,931	100.0	61.8	1,393,044	100.0	66.4	394,719	100.0	68.8

Textiles constituted 62, 66, and 69 per cent of the total export trade of Japan in the years 1913, 1919, and January-June, 1921, respectively. The exports of raw silk during 1913 and 1919 made up 48 per cent and 45 per cent, respectively, of the textile exports and over 29 per cent of the total Japanese exports. The United States has always been a large importer of silk from Japan. This trade has increased until in the first six months of 1921 the United States took 99 per cent of the total exports of Japanese raw silk, and the exports of this one commodity to this country equaled over 26 per cent of the total Japanese export trade.

Exports of cotton yarns and tissues have also held an important place in textile exports, making up 27 per cent of this trade in the pre-war year 1913, increasing in 1919, and amounting to 41 per cent during the first six months of 1921. The relation of this trade to the total Japanese export trade has increased from 17 per cent in 1913 to 28 per cent in June, 1921, surpassing in value the raw silk exports in the latter period.

Exports of silk yarns and tissues have consistently made up about 11 per cent of the textile exports and from 6 to 7 per cent of the total exports.

YARNS, THREADS, TWINES, CORDAGE, AND MATERIALS THEREOF.

(Group VIII of imports and Group VII of exports.)

The trade in this group of commodities includes that in the raw materials, cotton, wool, silk, and waste silk and the semi-manufactured products of these materials made up principally of cotton and silk yarns.

Trade in yarns, threads, twines, cordages, and materials thereof, 1913-1921.

[Values in thousands of yen.]

Year.	Imports.		Exports.	
	Value.	Per cent of total import trade.	Value.	Per cent of total export trade.
Calendar year—				
1913.....	271,416	37.21	276,520	43.73
1914.....	250,285	42.01	250,963	42.45
1915.....	262,750	49.35	221,734	32.72
1916.....	326,660	43.18	369,347	32.76
1917.....	410,897	39.67	501,851	31.31
1918.....	617,438	37.01	588,218	29.99
1919.....	781,681	35.96	788,373	37.56
1920.....	891,943	38.18	591,576	30.36
1921 (January-June).....	255,548	31.99	209,850	36.57
Year ending June 30—				
1919.....	681,365	36.29	573,534	30.31
1920.....	1,092,008	44.18	773,812	22.04
1921.....	406,601	26.59	538,860	25.64

Increase in imports:	Per cent.	Increase in exports:	Per cent.
1919 over 1913.....	188	1919 over 1913.....	135
1920 over 1913.....	228	1920 over 1913.....	114

The value of the imports of this group constitutes usually somewhat more than one-third of the total Japanese imports, while exports make up from 30 to 44 per cent of total exports from the Empire. The year ending June 30, 1920, was the banner year in the imports of this group, while imports for the year ending June 30, 1921, were only 37 per cent of those of 1920. Although the value of these imports is proportionately less for the first six months of 1921 as compared with the preceding calendar year, it should be remembered that raw cotton, which made up 86 per cent of these imports in 1913, 81 per cent in 1920, and 79 per cent in the first six months of 1921, fell from an average value of 92 yen per picul in 1920 to 52 yen per picul in 1921, or a decrease of 44 per cent in unit value.

The value of textile exports reached a high mark, 788,373,000 yen, for the calendar year 1919; the value of the exports during the first six months of 1921 was 209,850,000 yen, and assuming that trade during the remainder of the year will continue at the same rate, the value of exports will show a decrease of 47 per cent as compared with the calendar year 1919 and of 29 per cent as compared with 1920. But in this connection it should be noted that raw silk, which constituted 79, 64, and 73 per cent of this export trade in the years 1919, 1920, and the first half of 1921, respectively, decreased in average value from 21.90 yen per kin in 1920 to 15.30 yen per kin for the first six months of 1921, or a decrease of 30 per cent.

This trade was especially heavy during the last half of 1919 and the first half of 1920. A comparison of the trade during the last six months of 1920 with the first six months of 1921 shows a decrease during the latter period in exports and an increase in imports.

IMPORTS.

Raw cotton.—Under this heading are included imports of ginned cotton and cotton in the seed, the latter making up in quantity about 1.3 per cent of the raw cotton imports, but only about 0.34 per cent in value. As previously stated, cotton is the largest item in

the imports of textiles and has the greatest value of any single commodity in the total import trade of the Empire.

The following tables show value and quantity of the imports of raw cotton, the percentage supplied by each of the principal countries of origin, and yearly value of these imports.

Imports of cotton in the seed and ginned cotton, 1913-1921.

VALUES.

[In thousands of yen.]

Imported from—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
China.....	16,505	11,750	15,337	19,678	30,596	88,786	76,730	12,722	10,188
British India.....	143,039	145,448	139,705	165,199	204,311	210,084	287,930	357,582	102,811
Straits Settlements.....	601	207	113	570	255	491	1,644	1,146	591
Dutch East Indies.....	606	207	125	1,050	218	1,452	702	448	174
French Indo-China.....	1,904	1,599	497	1,741	629	833	414	132	112
Siam.....	35	72	84	197	4	145	36	.....	.....
United States.....	64,220	53,966	55,654	79,370	84,085	205,108	286,112	339,164	100,103
Egypt.....	6,236	5,724	5,802	8,257	10,948	8,865	13,404	7,612	5,191
Other countries.....	453	209	.....	37	30	95	895	2,631	79
Total.....	233,599	218,975	217,316	276,089	330,976	515,559	667,867	721,437	219,249

PER CENT DISTRIBUTION.

China.....	7.07	5.37	7.06	7.13	9.24	17.22	11.49	1.76	4.65
British India.....	61.23	66.42	64.29	59.83	61.73	40.75	43.11	49.57	46.89
United States.....	27.49	24.64	25.61	28.75	25.41	39.78	42.84	47.01	45.06
Other countries.....	4.21	3.57	3.04	4.29	3.62	2.25	2.56	1.66	2.80
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Average value, yen per picul.....	34.85	35.30	29.80	33.01	48.96	75.54	84.34	92.04	82.14
Per cent cotton is of total import trade.....	32.02	36.74	40.81	36.49	31.95	30.90	30.73	30.88	27.45

QUANTITIES.

[In thousands of piculs.]

Imported from—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
China.....	575	417	592	660	644	1,231	994	203	237
British India.....	4,005	4,143	4,897	5,133	4,495	2,903	3,575	4,195	2,357
Straits Settlements.....	31	.....	13	65	25	23	67	45	41
Dutch East Indies.....	72	28	16	51	16	55	22	11	9
French Indo-China.....	156	115	41	84	41	14	14	6	6
Siam.....	4	7	10	18	.....	6	2	.....	.....
United States.....	1,720	1,370	1,615	2,206	1,705	2,510	3,114	3,273	1,492
Egypt.....	125	116	108	145	121	83	122	70	61
Other countries.....	14	5	.....	1	1	1	9	38	2
Total.....	6,702	6,203	7,292	8,363	7,048	6,826	7,919	7,839	4,205

PER CENT DISTRIBUTION.

China.....	8.58	6.72	8.12	7.89	9.14	18.03	12.55	2.59	5.63
British India.....	59.76	66.78	67.15	61.37	63.78	42.53	45.14	53.51	56.05
French Indo-China.....	2.33	1.85	.56	1.00	.58	.20	.17	.....	.14
United States.....	25.66	22.08	22.15	26.37	24.19	36.77	39.32	41.75	35.48
Egypt.....	1.87	1.87	1.48	1.73	1.72	1.22	1.54	.89	1.45
Other countries.....	1.80	.70	.56	1.64	.59	1.25	1.28	1.26	1.25
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Increase in quantity:	Per cent.	Increase in value:	Per cent.
1919, as compared with 1913.....	18	1919, as compared with 1913.....	186
1920, as compared with 1913.....	17	1920, as compared with 1913.....	209

The cotton imported from the various countries differs considerably in quality and hence in unit value. British India, the United States, and China are the principal countries of origin in the order named, the cotton imported from the United States being the best grade, with that from British India second and China third. Cotton production in Japan proper was about 5,618,000 pounds in 1918 (the latest figure available), and production has shown a steady decrease during the previous 10 years. However, cotton growing in Korea has been steadily increasing, reaching the high point of 92,965,000 pounds in 1918. In this same year Japan imported 910,100,000 pounds, or more than nine times the total production of cotton in Japan proper and Korea combined. In this connection it should be noted that while the value of cotton imports increased 209 per cent when 1913 is compared with 1920 the quantity of imports increased only 17 per cent. The apparent increase in the cotton import of Japan was consequently primarily an increase in value only. The share of the United States in this trade remained about stationary during the war but in more recent years increased and in 1920 nearly half of the raw cotton imports, as measured in value, came from this country. Coincident with the growth of the American proportion has come a decrease in the relative amount furnished by British India. Formerly the latter country furnished about two-thirds of the total value but this has now fallen to less than half. The average value per picul for all imports of cotton increased from 34.85 yen in 1913 to 92.04 yen in 1920, while the value of imports from the principal sources changed as follows: China, from 28.71 yen per kin in 1913 to 62.80 in 1920; British India, from 35.70 yen in 1913 to 65.79 in 1920; and the United States, from 37.21 yen in 1913 to 103 in 1920. The ratio which the raw cotton imports bears to the total import trade has not changed radically, constituting from 30 to 40 per cent of the total.

Wool.—The value and quantity of wool imports, including raw wool and wool tops, by countries of origin, whenever obtainable, are shown in the following tables and also the average unit value of imports:

Imports of wool and wool tops, 1913-1921.

[Values in thousands of yen.]

Imported from—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June)
China.....	320	1,330	4,554	1,992	1,195	1,905	7,192	2,937	427
Asiatic Russia.....			583				71		
Great Britain.....	7,279	5,135	1,391	561	455	887	636	7,131	1,293
Australia.....	7,995	8,121	23,979	30,877	17,695	22,889	14,592	31,820	12,144
Cape Colony and Natal.....				6	18,614	27,117	35,524	73,119	1,042
Other African countries.....				2	9,823	537	716		
South American countries.....			1		4,169	6,565	1,466	2,515	
All other countries.....	404	198	76	69	161	246	1,107	4,107	147
Total.....	15,998	14,784	30,584	33,507	52,112	60,146	61,304	121,629	15,017

Imports of wool and wool tops, 1913-1921—Continued.

PER CENT DISTRIBUTION.

Imported from—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
China.....	2.00	8.99	14.89	5.95	2.29	3.17	11.73	2.41	2.84
Asiatic Russia.....			1.91				.12		
Great Britain.....	45.50	34.74	4.55	1.67	.87	1.47	1.04	5.86	8.41
Australia.....	49.98	54.93	78.40	92.15	33.95	38.05	23.80	28.16	80.87
Cape Colony and Natal.....				.02	35.72	45.09	57.95		
Other African countries.....				.01	18.85	.89	1.17	60.12	6.94
South American countries.....					8.00	10.92	2.39	2.07	
All other countries.....	2.52	1.34	.25	.20	.32	.41	1.89	3.38	.94
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Total quantity, in thousands of kin.....	15,795	15,624	43,298	35,136	39,628	38,833	41,772	56,212	10,596

As will be seen from the preceding table, the principal sources of origin in 1913 were Great Britain and Australia. In 1915, however, Australia supplied 78 per cent, the trade increasing in 1916 to 92 per cent, but decreasing in 1918 to 38 per cent, in which year Cape Colony and Natal supplied 45 per cent and South American countries 11 per cent. The Australian decrease was the result of the British commandeering of the Australian and New Zealand wool supplies which left the African countries as one of the few free wool markets of the world. Japan logically turned to that source, continuing her buying from Cape Colony and Natal through 1920, since the British Government did not relinquish its control of the other colonial sources of supply until the middle of that year. Australia furnished 81 per cent in value of the Japanese wool imports during the first six months of 1921, indicating that she is regaining her former position in this trade. Japan has a very small wool production amounting to only some 30,000 pounds per year and the wool spinning and weaving industry in the country is almost entirely dependent on imports for its supply of raw material.

As will be seen, the average value of raw wool imports increased from a low of 0.55 yen per kin in 1914 to a high of 2.00 yen in 1920, the unit value, however, having very materially decreased in 1921, as indicated in the table.

Imports of raw wool, 1913-1921.

[Quantities in thousands of kin.]

Imported from—	1913	1914	1915	1916	1917	1918	1919	1920 ¹	1921 (January-June). ¹
China.....	769	3,430	9,973	3,599	1,902	2,378	8,543		
Kwantung.....		48	162	47	6	92	1,321		
Great Britain.....	580	385	415	173	235	783	380		
United States.....					97	191	27		
Argentina.....					2,021	4,277	581		
Cape Colony and Natal.....				12	6,017	20,109	10,589		
Australia.....	7,300	5,585	27,536	26,788	6,252	7,914	628		
All other countries.....	59	29	1,315	34	18,773	541	16,464		
Total.....	8,708	9,477	39,401	30,653	35,303	36,285	38,533	53,351	9,050

¹ Details not available.

Imports of raw wool—Continued.

PER CENT DISTRIBUTION.

Imported from—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June) ¹
China.....	8.83	36.20	25.31	11.75	5.39	6.55	22.17	-----	-----
Kwantung.....	-----	.50	.41	.15	.02	.25	3.43	-----	-----
Great Britain.....	6.66	4.06	1.05	.56	.67	2.16	.99	-----	-----
United States.....	-----	-----	-----	-----	.28	.53	.07	-----	-----
Argentina.....	-----	-----	-----	-----	5.72	11.79	1.50	-----	-----
Cape Colony and Natal.....	-----	-----	-----	.04	17.04	55.40	27.49	-----	-----
Australia.....	83.83	58.94	69.88	87.39	17.71	21.82	1.63	-----	-----
All other countries.....	.68	.30	3.35	.11	53.17	1.50	42.72	-----	-----
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	-----	-----
Total value in thousands of yen.....	5,221	5,190	24,400	25,059	39,786	49,141	47,567	106,503	8,728
Average value, yen per kin..	0.60	0.55	0.62	0.82	1.13	1.35	1.23	2.00	0.96

Imports of wool tops.

[Quantities in thousands of kin.]

Imported from—	1913	1914	1915	1916	1917	1918	1919	1920 ¹	1921 (January-June) ¹
China.....	29	-----	-----	-----	-----	-----	-----	-----	-----
Great Britain.....	4,420	3,070	705	214	62	-----	11	-----	-----
United States.....	19	-----	-----	9	17	-----	-----	-----	-----
Argentina.....	-----	-----	-----	-----	97	-----	22	-----	-----
Cape Colony and Natal.....	-----	-----	-----	11	-----	3	-----	-----	-----
Australia.....	2,415	2,987	3,181	4,261	4,134	2,545	3,207	-----	-----
Other countries.....	204	90	-----	-----	4	-----	-----	-----	-----
Total.....	7,087	6,147	3,886	4,484	4,325	2,548	3,240	2,861	1,546

PER CENT DISTRIBUTION.

China.....	0.40	-----	-----	-----	-----	-----	-----	-----	-----
Great Britain.....	62.38	49.94	18.14	4.77	1.43	-----	0.34	-----	-----
United States.....	.27	-----	-----	.20	.39	-----	-----	-----	-----
Argentina.....	-----	-----	-----	-----	2.24	-----	.68	-----	-----
Cape Colony and Natal.....	-----	-----	-----	-----	.26	0.10	-----	-----	-----
Australia.....	34.07	48.60	81.86	95.03	95.59	99.90	98.98	-----	-----
Other countries.....	2.88	1.46	-----	-----	.09	-----	-----	-----	-----
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	-----	-----
Total value, in thousands of yen.....	10,727	9,594	6,184	8,448	12,327	11,005	13,736	15,126	6,289
Average value, yen per kin..	1.51	1.56	1.59	1.88	2.85	2.54	4.24	5.28	4.07

¹ Details not available.

Imports of wool tops decreased from 7,000,000 kin in 1913 to 2,860,000 kin in 1920, while during the same period imports of raw wool increased from 8,700,000 kin to 53,300,000 kin, the latter figure, as will be noted, being more than six times that of 1913. This change from importation of a partly manufactured product (wool tops) to the raw material (wool) is another indication of the development of Japanese industry.

The primary reasons for the enlarged imports of wool are found in the need to supply the war orders from Russia for wool cloth, and the ever-increasing demand from the Far East for wool yarns and

fabrics, a market which had been largely cut off from Europe, the pre-war source, because of the exigencies of war.

Vegetable fibers other than cotton (flax, jute, manila hemp, China grass, ramie, etc.).—Japanese statistics show the imports in value and quantity of these vegetable fibers other than cotton under the grouping given in the following table:

Imports of flax, China grass, ramie, hemp, jute, and manila hemp, 1913-1921.

[Quantities in thousands of kin; values in thousands of yen.]

Year.	Flax, China grass, and ramie. ¹		Hemp, jute, and manila hemp. ¹	
	Quantity.	Value.	Quantity.	Value.
1913.....	5,295	898	25,774	6,458
1914.....	4,618	777	26,334	7,162
1915.....	4,187	652	33,361	7,771
1916.....	6,213	967	38,126	8,156
1917.....	10,339	1,711	54,404	16,722
1918.....	10,344	3,021	60,765	19,709
1919.....	9,686	2,922	45,331	13,861
1920.....	5,903	2,001	43,892	13,228
1921 (January-June).....	2,442	551	26,976	5,280

¹ Official classification.

It will be noted that hemp, jute, and manila hemp have the larger value of the fibers in this class. Flax comes almost entirely from China, as does China grass and ramie, jute from British India, and manila hemp from the Philippines. The following table shows the details of the trade in this group of vegetable fibers other than cotton:

Imports of flax, jute, manila hemp, China grass, ramie, etc., by countries, 1913-1921.

[Values in thousands of yen.]

Imported from—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
China.....	2,243	2,000	2,128	3,421	4,532	7,062	8,775	6,974	1,780
British India.....	1,153	832	1,280	855	1,223	2,169	2,319	2,013	1,201
Philippine Islands.....	3,770	5,093	4,999	4,814	12,194	13,251	5,430	6,214	2,846
Other countries.....	190	14	16	34	484	248	259	28	14
Total.....	7,356	7,939	8,423	9,124	18,433	22,730	16,783	15,229	5,841

PER CENT DISTRIBUTION.

China.....	20.50	25.19	25.26	37.50	24.59	31.07	52.28	45.80	30.47
British India.....	15.67	10.48	15.20	9.37	6.63	9.54	13.82	13.22	20.52
Philippine Islands.....	51.24	64.16	59.35	52.76	66.15	58.30	32.36	40.80	48.73
Other countries.....	2.59	.17	.19	.37	2.63	1.09	1.54	.18	.24
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Total quantity in thousands of kin.....	31,069	30,951	37,549	44,338	64,742	71,108	55,018	49,795	29,419

The manufactured products, for which flax, hemp, jute, etc., constitute the raw materials, are mainly for domestic consumption. They

include cordage, fish nets, sacks, etc. Hemp braid, however, has shown considerable increase in exports.

Cocoons.—The quantity of imports of cocoons in 1919 had increased 67 per cent as compared with 1913, while the value increased 450 per cent. The quantity of imports for 1920 dropped to less than half that of 1919, but statistics covering the first six months of 1921 indicate a trade somewhat larger than that which prevailed in 1913 in volume, while values are much greater.

Imports of cocoons and wild silk, 1913-1921.

[Quantities in thousands of kin; values in thousands of yen.]

Year.	Cocoons.		Wild silk.	
	Quantity.	Value.	Quantity.	Value.
1913.....	1,610	953	277	847
1914.....	901	683	499	1,544
1915.....	1,775	1,845	829	2,333
1916.....	1,350	1,371	757	2,313
1917.....	1,268	1,369	568	2,571
1918.....	2,312	3,198	1,470	7,520
1919.....	2,692	5,232	1,973	12,938
1920.....	1,169	2,461	990	8,416
1921 (January-June).....	1,066	1,283	930	5,664

Wild silk.—This commodity increased 613 per cent in quantity imported in 1919 as compared with 1913, while the value increased 1,425 per cent. Similar to the trade in cocoons, the wild silk trade fell off during 1920, but gives indications of considerable increase in 1921.

Yarns.—The following table contains import statistics of yarns and shows the fluctuations in Japanese imports of this product:

Imports of yarns, 1913, 1917, 1920, and 1921.

[Quantities in thousands of kin; values in thousands of yen.]

Yarns.	1913		1917		1920		1921 (January-June).	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Cotton.....	380	465	217	552	1,536	4,543	153	477
Worsted.....	5,465	10,059	283	769	1,159	7,541	591	4,275
Mixed cotton and wool.....	54	73	28	66	56	241	3	13
Linen.....	220	202	.....	.....	2	17	.....	.....

There have been very material changes in the imports of yarn. Cotton yarns are imported chiefly from China, although previously the supply came from Great Britain. Worsted yarns, as well as those of mixed wool and cotton, are imported principally from Great Britain.

EXPORTS.

Raw silk.—Since raw silk constitutes the largest item in the total export trade of Japan, its predominance in Group VII, the textile group, is necessarily most striking.

Raw silk exports in relation to total Group VII and to total export trade of Japan, 1913-1921.

[Values in thousands of yen.]

Year.	Total export trade.	Group VII (yarns, threads, twines, cordages, etc.).		Raw silk.		
		Value.	Per cent of total export trade.	Value.	Per cent of Group VII.	Per cent of total export trade.
1913.....	632,460	276,520	43.73	188,917	68.32	29.87
1914.....	591,101	250,963	42.45	161,797	64.47	27.37
1915.....	708,307	231,734	32.72	152,031	65.61	21.36
1916.....	1,127,468	369,347	32.76	267,037	72.30	23.68
1917.....	1,603,005	501,851	31.31	355,155	70.77	22.16
1918.....	1,962,101	588,218	29.98	370,337	62.96	18.87
1919.....	2,068,873	788,373	37.56	623,619	79.10	29.71
1920.....	1,948,395	591,576	30.36	382,717	64.69	19.64
1921 (January-June).....	573,853	209,850	36.57	153,930	73.35	26.82

As will be seen from the above table, the exports of raw silk have constituted from 63 to 79 per cent of the exports of this group and from 19 to 30 per cent of the total Japanese export trade. The exports in value by countries of destination, the per cent of distribution; and the quantity exported are as follows:

Exports of raw silk, 1913-1921.

VALUES.

[In thousands of yen.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
Great Britain.....	675	926	805	2,020	7,243	7,295	3,326	3,173	.....
France.....	32,129	15,468	20,401	31,686	35,074	41,601	17,157	37,036	39
Italy.....	24,811	8,466	211	.....	1,176	1,533	296	59	.....
Russia.....	4,415	1,459	3,172	3,892	4,561	.....	.....	.....	.....
United States.....	125,909	134,800	127,349	224,093	306,170	318,673	600,843	341,599	153,838
Other countries.....	978	678	93	346	931	1,235	1,997	850	53
Total.....	188,917	161,797	152,031	267,037	355,155	370,337	623,619	382,717	153,930

PER CENT DISTRIBUTION.

	1913	1914	1915	1916	1917	1918	1919	1920	1921
Great Britain.....	0.36	0.57	0.53	0.76	2.04	1.97	0.53	0.82	.....
France.....	17.01	9.56	13.42	11.86	9.88	11.23	2.75	9.68	0.03
Italy.....	13.13	5.23	.14	.....	.33	.41	.05	.02	.....
Russia.....	2.33	.91	2.08	3.33	1.28	.....	.....	.....	.....
United States.....	66.65	83.31	83.77	83.92	86.21	86.05	96.35	89.26	99.94
Other countries.....	.52	.42	.06	.13	.26	.34	.32	.22	.03
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

	Per cent.
Increase in quantity, 1919 compared with 1913.....	41
Increase in value, 1919 compared with 1913.....	230
Increase in unit value, 1919 compared with 1913.....	133

Exports of raw silk, 1913-1921—Continued.

QUANTITIES.

[In thousands of kin.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June)
British India.....	12	103	8	35	23	81	-----	62	-----
Great Britain.....	71	112	97	187	521	496	158	192	-----
France.....	3,533	1,641	2,412	2,598	2,677	2,689	833	2,482	3
Italy.....	2,705	845	26	-----	77	115	19	4	-----
Russia.....	471	151	398	743	382	-----	-----	-----	-----
United States.....	13,341	14,269	14,863	18,182	22,063	20,859	27,530	14,703	10,048
Other countries.....	93	28	10	17	105	104	83	26	4
Total.....	20,229	17,149	17,814	21,742	25,829	24,344	28,622	17,469	10,053
Total value in thousands of yen.....	188,917	161,797	152,031	267,037	355,155	370,337	623,619	382,717	153,930
Average value, yen per kin.....	9.34	9.43	8.53	12.28	13.75	15.21	21.78	21.90	15.30

Under "raw silk" in the export statistics, the following divisions are made: Filatures, steam, up to 12 denier; filatures, steam, over 12 denier; filatures, hand; dupion and "other." The filature, steam, over 12 denier, makes up over 90 per cent of the export trade in raw silk.

Although the total quantity of raw silk exports decreased in 1914 there was a slight increase in 1915 with a considerable advance in 1916 and through 1917. The year 1918 saw a decline as compared with the previous twelve months, but the exports of 1919 were the largest on record, while those for 1920 show a sharp reduction. The total value of these exports has increased from 188,917,000 yen in 1913 to 623,619,000 yen in 1919, an increase of 230 per cent, while the quantity of exports increased only 41 per cent, which is, of course, a reflection of the average value per kin, which grew from 9.34 yen in 1913 to 21.78 yen in 1919. In 1920 exports decreased in quantity, but slightly increased in unit value. The quantity of exports for the first six months of 1921 indicates an increase for this year over 1920. The unit value in this year, however, while not back to the pre-war level, showed a considerable decrease over the high mark reached in 1920.

The United States has always taken the bulk of Japanese raw silk exports, while France and Italy have been the other principal markets. The trade in raw silk has been considerably affected by the war conditions. Prior to the war Italy, herself a silk producing country, imported the Japanese product principally for further manufacture and reexportation, while France, although a substantial producer of silk, imports considerable of the raw material for home consumption. Early in the war the Italian silk trade practically ceased, as well as the small trade formerly carried on with Russia. There have been no exports to Russia since 1917 and the trade with Italy has not been revived, presumably due to the present depressed condition of the silk industry in that country. This trade with France has continued through the war with considerable fluctuations. The United States has consumed increasing proportions of Japan's raw silk exports, and an idea of the importance of this country as a market for Japanese silk may be obtained from a study of the percentages which the exports to the United States form of the total. During the period, January-June, 1921, 99.94 per cent of raw silk exports came to this

country which means that during these months the United States has had in raw silk alone over 26 per cent of the total Japanese export trade.

Waste silk.—Exports of waste silk rank second in importance among the nonmanufactured silk items. The tables below show the exports of this article in value and quantity, the countries to which exported, and the average value per kin.

Exports of waste silk, 1913-1921.

VALUES.

[In thousands of yen.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920 ¹	1921 (January-June). ¹
Great Britain.....	486	243	683	361	1,313	668	501	.....	.....
France.....	6,618	2,822	2,619	5,402	7,993	12,986	10,701	.....	.....
Italy.....	2,101	916	1,103	2,075	2,359	1,459	1,729	.....	.....
United States.....	1,003	587	1,477	2,572	4,667	11,565	5,533	.....	.....
Other countries.....	263	105	70	70	217	333	1,444	.....	.....
Total.....	10,471	4,673	5,952	10,480	16,549	27,011	19,908	19,014	2,862

PER CENT DISTRIBUTION.

Great Britain.....	4.64	5.21	11.48	3.44	7.93	2.47	2.52	.....	.....
France.....	63.20	60.39	44.01	51.54	48.29	48.08	53.76	.....	.....
Italy.....	20.07	19.60	18.53	19.80	14.26	5.40	8.68	.....	.....
United States.....	9.58	12.56	24.81	24.54	28.20	42.82	27.79	.....	.....
Other countries.....	2.51	2.24	1.17	.68	1.32	1.23	7.25	.....	.....
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	.....	.....
Average value, yen per kin..	1.30	1.22	1.02	1.25	1.89	2.66	4.00	3.23	1.55

QUANTITIES.

[In thousands of kin.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920 ¹	1921 (January-June). ¹
Great Britain.....	331	246	620	343	608	287	180	.....	.....
France.....	5,212	2,342	2,601	4,300	4,242	4,890	2,458	.....	.....
Italy.....	1,710	821	1,529	2,216	1,838	842	519	.....	.....
United States.....	564	312	995	1,465	1,974	4,008	1,424	.....	.....
Other countries.....	217	96	74	42	109	126	414	.....	.....
Total.....	8,034	3,817	5,819	8,366	8,771	10,153	4,975	5,878	1,849

¹ Details not available.

A study of the preceding tables shows that in 1913 France received the largest amount of this waste silk, with Italy second and the United States third, but in 1917 the United States assumed second place, which she has held since that time. France has always been the largest importer of Japanese waste silk. The average value per kin of these exports decreased during 1913-14-15, but in 1916 there was an increase which continued through 1919. The years 1920 and 1921 show an abrupt decline and the average unit value for January-June, 1921, is only slightly higher than that in 1913.

Silk yarn.—The quantity of silk yarn exported in 1917 and 1918 increased enormously while the average value per kin was below

that for 1913. This unusual condition is explained by the fact that much of the silk yarn exported in this period was made from waste noils, the yarn to be used in the manufacture of cartridge bags for which the war demand was steadily increasing. The low average per kin during the period was, of course, the result of the cheaper grade of material exported. The year 1918 holds the record for quantity as well as for value of these exports, much of the increase going to the United States to supply war needs. The increased average value per kin of the exports for the first six months of 1921 is still another indication of industrial development, the change in this case having been from the manufacture of coarse to finer silk yarns.

Exports of spun-silk yarns, 1913-1921.

[Quantities in thousands of kin; values in thousands of yen.]

Year.	Quantity.	Value.	Average value, yen per kin.
1913.....	503	2,223	4.42
1914.....	567	2,339	4.12
1915.....	577	2,152	3.73
1916.....	442	1,707	3.86
1917.....	1,493	3,983	2.67
1918.....	2,038	6,723	3.30
1919.....	302	2,688	8.90
1920.....	651	5,507	8.46
1921 (January-June).....	140	1,616	11.54

	Per cent.
Increase in quantity, 1918 over 1913.....	305
Increase in value, 1918 over 1913.....	202

Cotton yarns.—As previously stated raw cotton is not extensively grown in Japan nor is it exported, and all imports are for further manufacture. The following tables show the export of cotton yarns by grades, and the distribution of these exports by principal countries of destination:

Exports of cotton yarns, by countries, 1913-1921.

[Values in thousands of yen.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
China.....	60,096	64,559	55,503	63,842	85,801	86,365	84,119	81,061	27,213
Kwantung.....	3,458	2,797	1,653	2,079	3,316	5,779	6,235	9,125	3,122
Hongkong.....	5,747	9,168	7,964	7,642	13,414	23,473	18,527	28,987	8,212
British India.....	987	971	405	3,239	4,133	34,999	2,980	30,253	8,565
Asiatic Russia.....			12	164	216	266	71	7	17
Philippine Islands.....	671	921	651	453	990	2,336	375	1,586	236
Other countries.....	39	139	23	173	269	5,082	1,925	1,425	180
Total.....	70,998	78,555	66,211	77,592	108,139	158,300	114,232	152,394	47,546
Total quantity, in thousands of kin.....	136,051	165,291	164,761	156,303	132,977	122,538	64,287	89,817	56,612
Average value, yen per kin..	0.52	0.48	0.40	0.50	0.81	1.29	1.78	1.70	0.84

	Per cent.
Decrease in quantity, 1918 compared with 1913.....	9.94
Increase in value, 1918 compared with 1913.....	123.00
Increase in unit value, 1918 compared with 1913.....	148.00
Decrease in quantity, 1919 compared with 1913.....	52.75
Increase in value, 1919 compared with 1913.....	60.00
Increase in unit value, 1919 compared with 1913.....	242.00

Exports of cotton yarns, by grades, 1913-1921.

[Quantities in thousands of kin; values in thousands of yen.]

Year.	Up to No. 20 (coarse).		Average value (yen per kin).	Over No. 20 (fine).		Average value (yen per kin).
	Quantity.	Value.		Quantity.	Value.	
1913.....	117,026	57,952	0.50	19,025	13,046	0.69
1914.....	144,928	64,683	.45	20,363	13,872	.68
1915.....	138,532	50,104	.36	26,229	16,107	.61
1916.....	128,790	56,133	.44	27,514	21,459	.78
1917.....	104,987	74,427	.71	27,989	33,713	1.20
1918.....	83,216	96,457	1.16	39,322	61,843	1.57
1919.....	39,924	61,093	1.53	24,363	53,139	2.18
1920.....	61,028	79,897	1.31	28,789	72,497	2.52
1921 (January-June).....	37,186	26,061	.70	19,426	21,487	1.11

It will be noticed that the quantity of the coarser yarns decreased while the quantity of the finer yarns exported increased, which is indicative of the change in the grade of yarns manufactured in Japan. China was the principal market prior to the war and has constantly remained in first place. Hongkong has shown a steadily increasing demand for these Japanese yarns, while the market in British India and Kwantung has been growing. The quantity exported remained fairly constant from 1913 through 1918 while the value had more than doubled. In 1919 while the average value per kin was increasing 38 per cent, the quantity exported decreased 47 per cent, as compared with the preceding year; the quantity increased in 1920 while the unit value remained practically the same. The data for the first six months of 1921 indicate that the total quantity for the year will be considerably above the corresponding figures for 1919 and 1920. The unit value for the six months' period shows a considerable decrease when compared with 1920, but is still noticeably above that for 1913. The variations in values are due partly to general rise and fall in prices and partly to the improved quality of the exported yarns.

A comparison of the exports for years ending June 30 with those for the calendar years shows that the quantities exported during the last six months of 1920 and the first six months of 1921 were nearly the same, whereas the exports for the first six months of 1920 were considerably below normal.

Exports of cotton yarns for the years ending June 30, 1919-21.

	1919	1920	1921
Value, in thousands of yen.....	145,651	124,873	127,773
Quantity, in thousands of kin.....	103,012	50,075	118,383
Average value, yen per kin.....	1.41	2.49	1.08

Other textile materials.—The following table shows the quantity and value of the exports of a number of miscellaneous items included in this group.

Exports of miscellaneous textile materials, 1913, and 1917-1921.

[Quantities in thousands of kin; values in thousands of yen.]

Textile materials.	1913		1917		1918	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Cocoons.....	378	663	283	769	270	1,143
Floss silk.....	356	1,043	1,305	6,160	1,300	7,634
Cotton wadding.....	748	237	1,370	516	1,045	636
Linen yarns.....	(¹)	(¹)	263	329	818	1,392
Cotton threads.....	239	212	1,616	1,766	2,981	3,945
Lace threads ²	302	273	819	864	867	1,135
Threads and twines of flax, hemp, jute, etc.	(¹)	(¹)	1,274	580	1,631	1,309
Cordages and ropes of hemp, jute, etc.....	267	76	1,205	403	2,068	957
Woolen or worsted yarns.....	115	158	558	2,409	530	2,569
Waste cotton and waste cotton yarns.....	7,819	920	18,601	3,141	11,807	2,767
All other twines, cordages, and raw materials thereof.....		317		1,080		2,329

Textile materials.	1919		1920		1921 (January-June).	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Cocoons.....	558	2,654	610	2,374	90	185
Floss silk.....	1,105	7,650	975	8,529	45	220
Cotton wadding.....	1,397	1,074	1,089	760	284	164
Linen yarns.....	1,234	2,124	1,323	2,940	7	17
Cotton threads.....	2,344	3,556	3,233	5,573	51	668
Lace threads ²	888	1,290	1,143	1,782	256	323
Threads and twines of flax, hemp, jute, etc.	3,974	2,278	1,612	1,226	1,020	560
Cordages and ropes of hemp, jute, etc.....	1,216	582	1,010	505	475	183
Woolen or worsted yarns.....	400	1,966	258	1,438	76	320
Waste cotton and waste cotton yarns.....	6,790	1,370	7,916	1,786	1,316	201
All other twines, cordages, and raw materials thereof.....		3,380		5,033		500

¹ First shown as an export article in the 1917 statistics.² Fillet and Cluny laces.

Every article included in the preceding table, as might be expected, has shown an increase in value during the war period. Floss silk had the greatest value of any single item in 1913 and held first place in 1920. Threads and twine of flax, hemp, and jute not mentioned previously to 1917 constituted the second largest export value during the first six months of 1921. Taken collectively the increase in value of miscellaneous textile exports has been due both to increased volume and higher unit prices.

TISSUES AND MANUFACTURES THEREOF.

(Group IX of imports and Group VIII of exports.)

This group includes trade in tissues and manufactures thereof with the exception of clothing which is discussed separately.

Imports and exports of tissues and manufactures thereof (exclusive of clothing and accessories), 1913-1921.

[Values in thousands of yen.]

Year.	Imports.		Exports.	
	Value.	Per cent of total import trade.	Value.	Per cent of total export trade.
Calendar year—				
1913.....	26,164	3.59	88,011	13.91
1914.....	18,095	3.04	81,309	13.74
1915.....	10,539	1.98	113,926	16.08
1916.....	12,817	1.70	143,955	12.78
1917.....	14,675	1.42	225,707	14.08
1918.....	24,660	1.48	408,650	20.83
1919.....	27,390	1.26	502,728	23.95
1920.....	56,200	2.41	552,549	28.36
1921 (January-June).....	20,638	2.58	168,747	29.41
Year ending June 30—				
1919.....	24,090	1.28	453,850	23.98
1920.....	37,166	1.50	609,512	17.25
1921.....	54,570	3.60	402,971	19.17

Imports:	Per cent.	Exports:	Per cent
Increase 1920 (calendar year) compared with 1913.....	115	Increase 1920 (calendar year) compared with 1913.....	527
Increase 1921 (year ending June 30) compared with 1913.....	199	Increase 1921 (year ending June 30) compared with 1913.....	358

A study of the table indicates strikingly the increased industrial development of Japan, for while exports of raw silk increased, the imports of cotton have grown larger and there has been an increase in the export of tissues and manufactures thereof and a decrease in their importation. Imports which made up 3.59 per cent of total imports in 1913 had decreased to 2.41 per cent in 1920, which was a 1 per cent increase over 1919, whereas the exports of tissues and manufactures thereof have increased from 13.91 per cent of total imports in 1913 to 28.36 per cent in 1920. A study of the corresponding imports and exports for the years ending June 30, 1919-1921, shows that imports increased materially in the last part of 1920, while exports were especially heavy during the last six months of 1919 and the first six months of 1920.

IMPORTS.

The imports of tissues and manufactures thereof are divided according to the principal raw material used in their manufacture. The following table shows the value of imports of each group:

Imports of tissues, 1913-1921.

[Values in thousands of yen.]

Year.	Woolen.	Cotton.	Flax, hemp, or jute.	Other.
1913.....	12,445	10,084	747	2,899
1914.....	10,225	5,260	629	1,981
1915.....	3,623	4,679	395	1,842
1916.....	5,181	4,079	631	2,926
1917.....	6,219	3,090	831	4,534
1918.....	11,496	5,701	826	6,647
1919.....	12,301	7,000	773	7,316
1920.....	31,270	15,024	967	8,939
1921 (January-June).....	12,845	3,461	248	4,085

Woolen tissues.—The imported woolen tissues include serges, mousseline de laine, flannels, Italian cloth, velvets, plushes, and mixtures of wool and cotton. Of these the most important single item is woolen cloth and serge weighing between 200 and 500 grams per meter.

Imports of woolen tissues have been as follows:

Imports of woolen tissues.

[Values in thousands of yen.]

Year.	Total.	From Great Britain.		From Germany.		From other countries.	
		Value.	Per cent of total value.	Value.	Per cent of total value.	Value.	Per cent of total value.
1913.....	12,445	9,528	76.56	2,227	17.89	690	5.55
1914.....	10,225	7,674	75.05	1,672	16.35	879	8.60
1915.....	3,623	3,266	90.15	171	4.71	186	5.14
1916.....	5,181	5,077	97.98	33	.63	71	1.38
1917.....	6,219	6,165	99.13	12	.19	42	.68
1918.....	11,486	11,333	98.67	3	.03	150	1.30
1919.....	12,301	11,987	97.45	6	.05	308	2.50
1920.....	31,270	30,350	97.06			920	2.94
1921 (January-June).....	12,845	12,526	97.52			319	2.49

Great Britain has always supplied the bulk of the Japanese imports of woolen cloths. Germany, however, supplied about one-sixth of the total prior to the war, but at present there are no Japanese imports of woolen tissues from that country.

Cotton tissues.—Japan has never been a large importer of foreign cotton goods. The early demand was for the coarser grades of fabric which were supplied mostly by the domestic hand-loom production, the poverty of the people preventing the purchase of foreign goods in large quantities. As the ability to buy increased, the cotton-weaving industry in Japan also developed with a result that the imports were only of the better class, the other grades being manufactured in Japan by their power machinery, which has gradually replaced the hand looms.

The values of the imports of the principal cotton tissues have been as follows:

Imports of cotton tissues, 1913-1921.

[Values in thousands of yen.]

Year.	Velvets, plushes, and other pile fabrics.	Shirtings and sheetings.		Italians and satins.	Cotton ducks (grey).	All other.	Total.
		Grey.	Bleached.				
1913.....	1,859	1,232	1,184	3,434	215	2,170	10,084
1914.....	627	319	892	2,053	196	1,173	5,260
1915.....	558	143	892	1,923	208	955	4,679
1916.....	467	38	775	1,598	384	817	4,079
1917.....	359	71	598	1,081	326	657	3,080
1918.....	635	23	641	1,811	1,148	1,443	5,701
1919.....	608	139	1,421	912	2,262	1,658	7,000
1920.....	1,807	1,072	2,407	2,047	1,751	5,940	15,024
1921 (January-June).....	785	6	301	497	923	967	3,461

There was a steady decrease from 1913 through 1917 in the total value of these imports. The year 1918, however, showed an increase extending through 1919 and 1920, the latter year being the high point, due to general increases in all of the enumerated items except cotton ducks. The principal increase was in value of "other" grey and bleached tissues and twilled shirtings and drills.

Great Britain, with the exception of the year 1919, has furnished over 90 per cent of the total imports of cotton tissues.

Percentage of imports of cotton tissues from Great Britain and the United States, 1913-1921.

Year.	From Great Britain.	From United States.	From other countries.
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
1913.....	91.54	1.30	7.16
1914.....	90.36	2.31	7.33
1915.....	95.62	2.86	1.52
1916.....	92.91	6.31	.78
1917.....	92.83	6.12	1.05
1918.....	95.45	3.38	1.17
1919.....	78.08	21.30	.62
1920.....	94.54	4.62	.84
1921 (January-June).....	90.98	8.30	.72

Fabrics of jute, flax, ramie, hemp, etc.—Coarse cloth and burlap manufactured from jute is used principally for wrapping purposes and is imported almost entirely from British India. The flax, ramie, and hemp fabrics come mainly from Great Britain. Jute fabric is the only one included in the following table that showed any considerable increase in value during the war. However, the imports of jute tissues fell off in value during 1920 while the value of flax, China grass, and hemp tissues increased.

Imports of fabrics of jute, flax, etc., 1913-1921.

[Quantities in thousands of square yards; values in thousands of yen.]

Year.	Jute fabrics.		Fabrics of flax, China grass, ramie, or hemp (including cotton mixture).		All other.	Total.
	Quantity.	Value.	Quantity.	Value.	Value.	Value.
1913.....	417	48	1,754	588	111	747
1914.....	694	81	1,355	433	115	629
1915.....	258	23	931	337	35	395
1916.....	826	56	1,001	512	63	631
1917.....	3,302	406	518	359	66	831
1918.....	1,596	259	403	451	116	826
1919.....	1,769	326	269	429	18	773
1920.....	863	226	432	734	7	967
1921 (January-June).....	379	66	110	177	5	248

Other tissues and manufactures thereof (except clothing and accessories).—The more important items in the imports of other tissues are bookbinder's cloth, oil cloth, woven belting for machinery, and gunny bags.

Imports of miscellaneous tissues and manufactures, 1913-1921.

Year.	Bookbinders' cloth.		Oilcloth.		Woven belting for machinery.		Gunny bags.		All other (1,000 yen).	Total value (1,000 yen).
	1,000 square yards.	1,000 yen.	1,000 kin.	1,000 yen.	1,000 kin.	1,000 yen.	1,000 kin.	1,000 yen.		
1913.....	1,540	264	1,133	224	454	561	411	76	1,764	2,889
1914.....	1,470	247	910	178	292	367	116	24	1,165	1,981
1915.....	1,529	260	1,168	236	130	190	.....	1,295	861	1,842
1916.....	1,718	310	1,562	400	152	250	.....	1,636	1,330	2,926
1917.....	2,361	562	1,258	380	160	315	.....	1,337	1,940	4,534
1918.....	1,654	583	1,182	590	173	388	.....	2,370	2,716	6,647
1919.....	1,510	743	1,482	1,036	188	469	.....	1,325	3,742	7,315
1920.....	2,163	1,165	1,428	943	200	588	.....	656	5,557	8,935
1921 (January-June).....	300	169	1,338	690	70	189	.....	261	2,776	4,086

¹ Includes old gunny bags.

The total value of these miscellaneous items has increased since 1913. It is evident, however, from a study of the quantity of these imports where available, that the increase has been one of value rather than of quantity. In the case of gunny bags there was an increase both in quantity (exact figures not available) and value, the change being due to the increased demand for bags used in the shipment of rice and refined sugar from Japan.

EXPORTS.

In the pre-war year 1913 the value of the silk fabrics exported was the largest item in the exports of tissues. After the outbreak of the war there was a material development of the Japanese cotton weaving industry with the result that, beginning with 1916, the exports of cotton goods have consistently surpassed in value those of silk tissues. There has been a steady increase in the total value of these tissue exports from 1913 through 1920, but the statistics for the first six months of 1921 indicate that this trade for the year will show considerable decrease.

Exports of tissues and manufactures thereof (except clothing and accessories), 1913-1921.

[Values in thousands of yen.]

Year.	Silk tissues.	Cotton tissues.	Other tissues (mainly woolen).	Towels, handkerchiefs, etc.	Total.
1913.....	39,347	33,606	970	14,088	88,011
1914.....	34,023	34,841	1,700	10,745	81,309
1915.....	43,219	38,511	19,584	12,612	113,926
1916.....	50,632	60,061	13,033	20,239	143,955
1917.....	62,858	127,458	13,153	22,238	225,707
1918.....	117,533	237,913	22,173	31,031	406,650
1919.....	162,476	280,311	23,288	36,648	502,723
1920.....	158,416	334,966	15,993	43,174	552,549
1921 (January-June).....	42,203	115,687	2,494	8,363	168,747
Per cent increase (or decrease [-]):					
1917 compared with 1913.....	59	279	1,255	57	156
1918 compared with 1913.....	199	608	2,186	120	364
1919 compared with 1913.....	313	734	2,301	160	471
1920 compared with 1913.....	303	897	1,549	206	524
1920 compared with 1919.....	-3	20	-32	18	10

Silk tissues.—As will be seen from the following tables, silk tissues constituted from 4 to 8 per cent of the total exports during the period 1913–1920 and habutae has constituted from 60 to 90 per cent of the tissues.

Exports of silk tissues, by classes, 1913–1921.

VALUES.

[In thousands of yen.]

Silk tissues.	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January–June).
Habutae:									
Plain.....	31,806	29,335	36,634	39,652	45,771	66,841	96,754	86,175	} 21,138
Figured.....	3,076	1,556	1,924	1,624	1,711	3,337	4,535	5,048	
Ro or silk lenoes.....	95	48	149						} 57
Kaiki:				224	269	458	423	356	
Silk.....	110	45	129						
Silk and cotton.....	39	4	14						
Satins:									
Silk.....	549	875	658	1,610	2,222	4,167	9,392	7,324	} 3,607
Silk and cotton.....	709	647	720	863	1,351	1,632	1,557	2,562	
Taffetas.....	1,179	513	897	859	888	1,691	1,776	1,740	546
Chiffon.....	570	161	71	120	91	323	1,038	538	131
Silk and cotton pongee.....		76	567	1,979	1,247	200	36	6	(1)
Crêpes.....	784	462	1,074	2,845	4,902	22,276	27,770	27,793	(1)
All other (including cotton mixtures).....	430	301	382	856	4,416	16,608	19,194	26,874	(1)
Total.....	39,347	34,023	43,219	50,632	62,858	117,533	162,476	158,416	42,203
Per cent exports of silk tissues are of total export trade.....	6.21	5.75	6.10	4.49	3.92	5.99	7.74	8.13	7.35

¹ Not listed separately.

QUANTITIES.¹

	1913	1914	1915	1916	1917	1918	1919	1920
Habutae:								
Plain.....1,000 kin..	2,480	2,240	2,997	2,597	2,589	3,099	2,977	2,538
Figured.....do....	283	147	185	134	113	160	159	159
Ro or silk lenoes.....1,000 yards..	140	69	179					
Kaiki.....do.....	258	113	252	387	327	417	287	230
Silk.....do.....	258	113	252					
Silk and cotton.....do.....	119	13	53					
Satins:								
Silk.....do.....	1,102	1,557	1,067	2,067	2,260	3,524	6,882	4,836
Silk and cotton.....do.....	1,598	1,446	1,622	1,711	2,024	1,801	1,472	2,083
Taffetas.....do.....	1,787	754	1,287	1,076	981	1,420	1,280	1,193
Chiffon.....do.....	1,347	358	175	283	177	379	1,131	694
Silk and cotton pongee.....do.....		125	1,096	2,901	1,563	250	41	4
Crêpes.....pieces..	47	571	1,208	2,708	4,068	14,787	14,952	11,400

¹ Reclassified in 1921.

Exports of silk tissues by countries of destination, 1913-1921.

[Values in thousands of yen.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June)
British India.....	8,970	4,138	6,799	5,898	5,700	9,156	14,990	12,469	3,834
Straits Settlements.....	816	270	365	538	467	683	871	692	352
Dutch East Indies.....	490	366	434	397	367	752	1,613	1,768	908
Great Britain.....	7,663	8,818	11,078	11,765	12,391	38,029	29,193	29,616	3,638
France.....	9,963	6,007	6,637	5,821	5,987	7,976	15,464	9,753	875
Italy.....	431	383	527	485	389	192	71	71	13
United States.....	5,183	6,985	8,536	14,196	19,484	20,546	62,072	41,818	21,875
Canada.....	168	369	1,318	2,754	5,102	10,689	11,430	9,482	3,588
South America.....	76	34	286	476	781	3,686	5,264	16,248	771
African countries.....	157	116	398	435	1,029	4,305	3,541	6,344	1,036
Australia.....	2,026	3,869	5,125	4,994	6,553	13,676	9,302	19,707	2,296
New Zealand.....	.....	.....	.....	895	1,287	2,882	1,919	2,984	357
China.....	674	868	847	974	2,195	2,914	3,500	3,232	1,423
Other countries.....	2,729	1,802	869	1,004	1,125	2,048	3,317	4,232	1,233
Total.....	39,346	34,025	43,219	50,632	62,857	117,534	162,476	158,416	42,203
Exports of habutae.....	34,882	30,891	38,558	41,276	47,482	70,178	101,290	91,223	21,195
Per cent o. habutae to total..	89	91	89	82	76	60	62	57	50

A study of these tables shows that there has been a considerable increase in the exports of satins and crêpes, especially the latter. This, when taken in connection with the decreasing relation which habutae exports bear to the total silk tissue exports, further emphasizes the expanding industrial development of Japan. Prior to the war habutae made up 90 per cent of the total silk tissue exports, while in 1920 this article constituted only 57 per cent, and this rate bids fair to be even lower for the year 1921. While the exports of habutae have been decreasing in relation to the total exports of silk tissue the absolute value has been increasing greatly, which indicates the expansion of the Japanese trade along this line. Since 1916 the United States has usually afforded the largest market for Japanese silk woven goods.

Exports of habutae, plain and figured, 1913-1919.¹

[Values in thousands of yen.]

Exported to—	1913	1914	1915	1916	1917	1918	1919
British India.....	6,813	3,274	5,406	4,133	3,955	4,774	7,527
Straits Settlements.....	549	149	223	280	244	301	370
Dutch East Indies.....	328	264	226	196	205	329	557
Great Britain.....	7,505	8,647	10,704	10,833	10,846	22,044	17,741
France.....	9,712	5,812	6,551	5,574	5,671	7,613	14,019
Italy.....	421	361	461	479	387	182	.....
Germany.....	1,328	1,134	.....	.....	.....	.....	.....
Denmark.....	.....	.....	7	133	.....	.....	.....
United States.....	5,007	6,796	8,372	12,799	16,090	16,781	46,498
Canada.....	158	357	1,250	1,882	2,909	4,371	4,044
Argentina.....	49	65	244	316	461	2,205	2,322
Egypt.....	55	53	162	205	494	1,260	1,030
Cape Colony and Natal.....	65	49	140	152	379	1,634	666
Australia.....	1,959	3,653	4,450	3,340	4,407	5,541	2,402
New Zealand.....	.....	.....	.....	520	815	1,390	560
Other countries.....	933	322	361	434	619	1,553	3,284
Total.....	34,882	30,890	38,557	41,276	47,482	70,178	101,290

¹ Export statistics by countries not available after 1919.

Exports of habutae, plain and figured, 1913-1919—Continued.

PER CENT DISTRIBUTION.

Exported to—	1913	1914	1915	1916	1917	1918	1919
British India.....	19.53	10.60	14.02	10.01	8.33	6.80	7.48
Great Britain.....	21.52	27.99	27.76	26.25	22.84	21.41	17.52
France.....	27.84	18.81	16.99	13.50	11.94	10.85	13.84
Germany.....	3.80	3.67	.....	.....	.....	.....	.....
United States.....	14.35	21.99	21.71	31.01	33.88	23.91	45.91
Canada.....	4.45	1.16	3.24	4.56	6.13	6.23	3.99
Australia.....	5.61	11.82	11.54	8.09	9.28	7.89	2.37
Other countries.....	6.90	3.96	4.74	6.58	7.60	12.91	8.89
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Total quantity, in thousands of kin.....	2,763	2,387	3,182	2,731	2,703	3,259	3,136
Average value, yen per kin.....	12.62	12.94	12.12	15.11	17.57	21.53	32.30

Average value in yen per kin: 1920, 33.82 yen; 1921, 20.17 yen.

Increase or decrease (—)	Per cent.
In total value, 1913, compared with 1917.....	86
In total quantity, 1913, compared with 1917.....	-2
In total value, 1913, compared with 1918.....	101
In total quantity, 1913, compared with 1918.....	18
In total value, 1913, compared with 1919.....	190
In total quantity, 1913, compared with 1919.....	13
In total value, 1913, compared with 1920.....	162
In total quantity, 1913, compared with 1920.....	-2

In the year 1913, 28 per cent of the habutae went to France, 22 per cent to Great Britain, 20 per cent to British India, and 14 per cent to the United States. During the war the percentages taken by the United States and Great Britain increased, while those taken by British India and France decreased. The latest figures of distribution available, those for 1919, show the United States to have taken 46 per cent, Great Britain 17 per cent, and France 14 per cent of the total habutae exports.

Cotton tissues.—The Japanese export trade in cotton tissues has increased greatly during the past eight years.

Exports of cotton tissues, by countries of destination, 1913-1921.

VALUES.

[In thousands of yen.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (Jan- uary- June).
China.....	18,965	26,189	27,332	34,784	84,804	88,048	143,284	130,516	55,065
Kwantung.....	9,109	3,331	3,178	4,025	8,988	20,832	44,206	26,593	7,982
Hongkong.....	1,143	1,032	913	1,454	2,648	3,621	3,208	9,347	6,383
British India.....	1,032	1,727	3,703	10,560	15,121	55,436	29,506	67,289	20,322
Straits Settlements.....	275	212	338	757	1,359	3,901	2,742	6,949	1,957
Dutch East Indies.....	233	183	429	2,243	5,701	17,694	24,416	60,466	16,062
French Indo-China.....	17	11	27	242	310	1,553	147	776	58
Asiatic Russia.....	881	754	905	525	1,959	17,528	18,878	703	214
Philippine Islands.....	546	308	247	277	1,066	1,548	506	6,552	2,246
Siam.....	113	61	69	180	382	1,545	334	1,362	305
Great Britain.....	105	75	193	762	61	463	205	86	30
United States.....	317	234	312	1,428	1,655	942	1,955	2,207	1,109
Australia.....	531	495	532	1,873	1,747	10,294	3,745	10,837	1,302
New Zealand.....	.....	.....	.....	289	398	1,302	530	1,275	76
Hawaii.....	152	101	181	222	265	182	390	545	277
Other countries.....	187	128	152	427	994	13,024	6,255	9,463	2,309
Total.....	33,606	34,841	38,511	60,051	127,458	237,913	280,311	334,966	115,687
Per cent of total export trade.....	5.31	5.89	5.44	5.33	7.95	12.12	13.35	17.19	20.15

Exports of cotton tissues, by countries of destination, 1913-1921—Continued.

PER CENT DISTRIBUTION.

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
China.....	56.43	75.17	70.97	57.92	66.54	37.01	51.12	38.96	47.60
Kwantung.....	27.11	9.56	8.25	6.70	7.05	8.76	15.77	7.94	6.90
Hongkong.....	3.40	2.96	2.37	2.42	2.08	1.52	1.14	2.79	5.57
British India.....	3.07	4.96	9.62	17.59	11.87	23.30	10.53	20.09	17.54
Dutch East Indies.....	.69	.53	1.11	3.74	4.47	7.44	8.71	18.05	13.88
United States.....	.94	.67	.81	2.38	1.30	.40	.70	.66	.96
Australia.....	1.58	1.42	1.38	3.12	1.37	4.33	1.34	8.23	1.13
Other countries.....	8.36	6.15	6.87	9.25	6.69	21.57	12.03	11.51	7.56
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

PER CENT INCREASE OR DECREASE (—).

Exported to—	1917 compared with 1913	1918 compared with 1913	1919 compared with 1913	1920 compared with 1913	1920 compared with 1919
China.....	347	364	656	588	— 9
Kwantung.....	— 1	129	385	1,921	—40
Hongkong.....	132	217	181	718	191
British India.....	1,365	5,272	2,759	6,420	128
Straits Settlements.....	394	1,319	897	2,427	153
Dutch East Indies.....	2,347	7,494	10,379	25,851	145
French Indo-China.....	1,724	9,036	765	357	428
Asiatic Russia.....	123	1,889	2,044	—20	—96
Philippine Islands.....	65	183	—7	1,100	1,195
Siam.....	238	1,267	196	1,105	308
Great Britain.....	—42	341	95	—18	—73
United States.....	422	197	517	596	13
Australia.....	229	1,539	605	1,941	189
New Zealand.....	—	—	—	—	141
Hawaii.....	74	20	157	259	40
Other countries.....	432	6,865	3,245	4,961	51
Total.....	279	608	734	897	19

The principal increase has been in the exports to Far Eastern countries, with China taking from 37 to 75 per cent and British India and the Dutch East Indies absorbing considerable amounts, especially in the past few years. Exports to the latter country have increased from 0.69 per cent of the total cotton tissues in 1913 to 18.05 per cent in 1920.

For many years prior to the war the Japanese had enjoyed the advantages of low labor costs in the manufacture of cotton goods, with a convenient source for a considerable amount of raw material (Asiatic raw cotton) and proximity to the cotton-consuming markets of the East. These advantages, coupled with the assistance of a fostering government, were the basis upon which the industry rested at the beginning of the war. Exports increased 897 per cent in value when 1913 is compared with 1920, while during the same period the quantity exported had increased approximately 75 to 85 per cent. These enlarged exports were due partially to increased production and partially to restricted domestic sales as a result of high prices.

Exports of cotton tissues, by classes, 1913-1921.

QUANTITIES.

Cotton tissues.	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January to June).
Cotton prints...1,000 yards..	(¹)	(¹)	(¹)	(¹)	41,682	38,016	45,795	37,509	12,922
Imitation nankeens...do.....		74,896	91,852	92,321	110,217	85,436	78,428	85,861	31,673
Drills and twilled shirtings.....1,000 yards.....	70,031	98,400	102,457	111,002	146,126	235,469	184,287	168,590	85,310
Kokuraori or west ribs...do.....		258	365	997	3,906	11,876	13,987	8,365	2,270
Cotton crêpes.....do.....	12,811	9,233	9,274	18,471	22,116	30,745	22,438	17,556	7,253
Cotton flannel.....do.....	12,907	10,513	18,719	57,247	79,875	44,093	32,872	15,199	2,225
Shirtings and sheetings, grey.....1,000 yards.....	95,056	114,505	135,546	163,316	247,118	359,072	299,653	341,582	171,340
Shirtings and sheetings, white.....1,000 yards.....	4,251	3,681	7,482	14,793	27,612	59,509	57,299	41,073	16,587
Turkey-red cambrics...do.....	2,295	1,363	2,024	7,798	7,218	7,499	4,318	2,501	3,365
T. cloths.....do.....	12,874	10,749	20,637	25,504	44,299	68,972	68,370	42,759	23,517
Cotton duck.....do.....	807	822	2,280	5,058	8,676	6,397	4,696	2,186	1,112
Imitation nankeens, .....1,000 yards.....	8,012	74,896	91,852	92,321	110,217	85,436	78,428	85,861	31,673
Striped tissues, 1,000 pieces.....	387	325	445	1,671	2,858	2,785	2,989	2,522	1,233
Spotted tissues.....do.....	69	68	100	103	155	187	371	235	93
Toweling, plain weaves.....1,000 pieces.....	391	284	227	251	164	91	96	63	.....
Center pieces for bed quilts.....1,000 dozens.....	91	65	81	125	122	96	61	51	27

¹ Not listed prior to 1917.² 1,000 pieces.

VALUES.

[In thousands of yen.]

	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
Cotton prints.....					5,665	7,745	12,803	13,861	3,762
Imitation nankeens.....	6,223	5,416	5,523	6,280	11,718	12,615	15,906	21,674	5,126
Drills and twilled shirtings.....	8,442	10,980	10,646	13,139	26,824	52,998	58,444	68,453	26,295
Kokuraori or west ribs.....		32	44	182	976	4,600	6,652	6,100	1,309
Cotton crêpe.....	1,890	1,346	1,366	3,099	4,006	6,938	6,720	6,873	2,016
Cotton flannel.....	1,247	1,087	1,878	6,140	10,838	9,614	11,241	12,240	791
Shirtings and sheetings, gray.....	11,198	12,596	13,545	18,497	40,177	83,241	94,727	138,996	53,232
Shirtings and sheetings, white.....	533	458	845	1,867	5,001	15,037	19,349	16,803	4,414
Turkey-red cambrics.....	253	144	196	1,857	954	1,377	1,145	722	906
T. Cloths.....	1,331	1,055	1,952	2,695	7,381	15,301	18,639	15,283	6,691
Cotton duck.....	257	214	612	1,449	1,460	3,119	2,822	2,557	824
Other cotton tissues.....	1,114	620	764	3,088	6,537	17,566	19,139	13,015	3,813
Striped tissues.....	352	297	380	1,568	4,421	6,112	10,644	14,631	5,482
Spotted tissues.....	84	80	118	131	232	349	795	653	200
Toweling plain weaves.....	126	101	93	107	87	70	101	85	.....
Center pieces for bed quilts.....	546	405	550	952	1,184	1,221	1,474	1,919	825
Total ¹	33,606	34,841	38,511	60,051	127,458	237,903	280,301	334,966	115,687

Increase, 1920, compared with 1913, 897 per cent.

¹ Includes "all others."

China from 1913 to 1917 absorbed on the average about 60 per cent of the Japanese exports of these tissues, and while the percentage has fallen off during 1918 and 1919, this decrease in percentage was due to the increase in total exports of cotton tissues rather than a reduction of exports to China. In 1920 exports to China, however, show a slight decrease both in quantity and value when compared with 1919, and the percentage figure is materially less.

The relation which imports of grey and white cotton piece goods from Japan bear to the imports of these articles from other countries to China may be gathered from the following table:

China's imports of grey and white piece goods.

[In thousands of pieces.]

Imported from—	1902		1913		1917	
	Quantity.	Per cent of total.	Quantity.	Per cent of total.	Quantity.	Per cent of total.
Great Britain.....	11,573	57.64	11,705	59.13	4,397	33.49
United States.....	6,251	31.13	2,281	11.52	71	.34
Japan.....	649	3.23	5,717	28.88	8,046	61.12
Other countries.....	1,606	8.00	92	.47	650	4.94
Total.....	20,079	100.00	19,975	100.00	13,164	100.00

Imported from—	1918		1919		1920	
	Quantity.	Per cent of total.	Quantity.	Per cent of total.	Quantity.	Per cent of total.
Great Britain.....	2,634	25.28	4,592	32.54	5,784	43.05
United States.....	101	.97	522	4.41	564	4.19
Japan.....	7,007	67.24	8,899	63.05	7,035	52.36
Other countries.....	679	6.51			55	.40
Total.....	10,421	100.00	14,113	100.00	13,438	100.00

Grey and white piece goods imported into China make up more than 80 per cent of the cotton tissues imported. As will be seen, Japan, while having only 3.23 per cent of this trade in 1902, had increased her share to 67.24 per cent in 1918, with some decrease apparent in 1920. Great Britain's proportion, 57.64 per cent of the trade in 1902, had decreased in 1918 to 25.28 per cent. It is evident from the moderate increase in 1919 and a further increase in 1920 that Great Britain is regaining some of her pre-war trade. In the study of the previous table, however, it must be borne in mind that Japan's exports of cotton goods to China increased 655 per cent in quantity between 1902 and 1913, while the increase between 1913 and 1919 was 55 per cent, showing that the growth of Japan's share of this trade is in no sense due entirely to war-time conditions.

Japan has, however, sold considerable cotton goods in former markets of Great Britain, and the following table gives the quantity and value of Great Britain's exports of cotton piece goods to certain countries of the Far East, which is the largest competitive market for Japanese and British cotton goods.

Great Britain's exports of cotton piece goods, calendar years, 1913-1921.

[Quantities in thousands of yards, values in thousands of pounds (sterling).]

Year.	To China.		To British India.		To Dutch East Indies.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1913.....	573,976	9,471	3,067,351	34,978	304,428	4,014
1914.....	469,900	8,106	2,608,336	29,612	270,014	3,413
1915.....	318,779	4,705	1,908,095	20,217	231,172	2,660
1916.....	289,856	5,440	1,935,133	25,662	256,546	3,921
1917.....	248,315	7,167	1,906,725	34,695	248,717	5,184
1918.....	169,984	8,196	935,389	27,428	165,061	5,388
1919.....	259,742	13,106	767,776	30,716	123,950	5,146
1920.....	(1)		1,374,017	75,299	209,177	13,384
1921 (January-June).....	(1)		461,895	18,950	71,134	4,324

¹ Figures for China not available.

British India is Great Britain's largest market for piece goods. England's exports of 3,000,000,000 yards to that country in 1913 had decreased in 1919 to 767,000,000 yards. The figures for 1920, however, show an increase over 1919 of nearly 100 per cent. The Dutch East Indies trade shows a similar tendency, cotton goods exported from Great Britain to those islands having decreased from 300,000,000 yards in 1913 to 123,000,000 yards in 1919, but this trade also nearly doubled in 1920. Similar decrease is apparent in the Chinese trade with Great Britain in this commodity except that the increase apparently began in 1919. No comparable figures are available for China in 1920 and 1921, since figures for these years include trade with Hongkong. Some of this decrease in the British trade can be accounted for by war time conditions and the development of local cotton spinning in the countries mentioned, but it is also partly due to the presence of Japanese goods in these markets.

A survey of the collective tables of the trade in cotton piece goods in various countries shows that although Japan materially increased her cotton-goods trade during the war, she has failed to hold a considerable part of this increase in the post-war period.

Woolen tissues.—The value of woolen tissues exported is as follows:

Exports of woolen tissues, 1913-1921.

[Values in thousands of yen.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
China.....	173	145	72	288	2,349	2,083	1,871	1,812	207
Kwantung.....	153	162	150	215	753	1,056	1,531	984	371
British India.....	1	2	18	611	449	834	218	1,413	60
Asiatic Russia.....	2	800	16,614	5,073	1,859	2,085	4,147	338	106
Great Britain.....		3	829	660	372	922	75	173	3
France.....	1		221	1,317	981	2,774	2,345	620	
Other countries.....	142	85	206	1,245	623	1,829	937	2,098	131
Total.....	472	1,198	18,110	9,409	7,386	11,658	11,124	7,433	878

Exports of these tissues were not of any great importance prior to the war, but since 1913 considerable increase in this trade has been evident. The trade has been erratic, however, increasing from 472,000 yen in 1913 to a high mark of 18,110,000 yen in 1915. There was a steady decline from 1918 through 1919 and 1920, but the figures for the latter year represented an increase of 1,475 per cent over the year 1913. The figures for 1921 (January-June), however, indicate a tremendous falling off in this trade during this period.

CLOTHING AND ACCESSORIES THEREOF.

(Group X of imports and Group IX of exports.)

When compared with the total Japanese import trade the value of the imports included in this group, being less than 0.2 per cent, is practically negligible. Exports of clothing, however, are of considerable importance and amount to about 5 per cent of the total Japanese export trade. The raw materials which are chiefly used in this group are cotton, wool, silk, leather, and straw. The very

small percentage of the value of imports in relation to the total import trade is largely accounted for by the fact that many of these items are included in other groups. The exports included under this heading consist almost entirely of manufactured articles.

Trade in clothing and accessories thereof, 1913-1921.

[Values in thousands of yen.]

Year.	Imports.		Exports.	
	Value.	Per cent of total import trade.	Value.	Per cent of total export trade.
1913.....	1,366	0.18	25,900	4.10
1914.....	898	.15	23,876	4.04
1915.....	369	.07	36,532	5.16
1916.....	705	.09	65,896	5.84
1917.....	924	.09	64,618	4.03
1918.....	1,346	.08	83,001	4.23
1919.....	2,444	.11	101,948	4.86
1920.....	3,141	.13	88,487	4.54
1921 (January-June).....	1,352	.17	16,112	2.81

	Per cent.		Per cent
Decrease in imports, 1917 compared with 1913.....	32	Increase of imports, 1919 compared with 1913.....	73
Increase in exports, 1917 compared with 1913.....	149	Increase of exports, 1919 compared with 1913.....	293

Clothing and accessories.—In 1913 the imports of clothing and accessories, mostly of European design, amounted to 1,366,000 yen. During the earlier years of the war the trade fell off and in 1917 the imports had decreased 32 per cent as compared with 1913. Beginning with 1918 a marked increase appears and there has been but little decline since then. Imports in 1920 amounted to 3,140,650 yen, which is an increase as compared with 1913 of 130 per cent.

The exports of clothing and accessories increased from 25,900,000 yen in 1913 to 64,618,000 yen in 1917, or approximately 150 per cent. The peak in value was reached in 1919 with exports of 101,948,000 yen, or an increase of 293 per cent when compared with 1913, but more recently the trade has declined seriously. The commodities in this export group are mostly the products of Japanese textile mills and the principal items in 1920 were cotton underwear, knitted socks and stockings, buttons of shell, and European clothing, in the order mentioned.

Knit goods (undershirts, drawers, socks, stockings, and gloves).—The exports of knit goods, which in 1920 comprised about 40 per cent of the total of this group, are shown in the following table. It will be noted that the Japanese have a wide market for these goods, though the greater amounts are sold in Oriental countries. British India and China absorb the largest quantities, though the exports to Great Britain, Cape Colony and Natal, and Australia have been of considerable importance, especially in recent years. The total value of the exports in 1919 had increased 260 per cent as compared with 1913, but the quantities show no such enlarged volume.

Exports of knit goods (undershirts, drawers, socks, stockings, and gloves), 1913-1921.

[Values in thousands of yen.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
United States.....						1,112	1,233	641	4
China.....	1,892	1,824	1,436	4,432	4,911	4,303	4,393	2,177	333
Kwantung.....	534	434	363	607	1,098	1,312	1,736	1,072	271
Hongkong.....	1,340	1,183	861	743	1,060	581	481	728	325
British India.....	4,963	4,696	3,312	6,951	6,404	4,366	8,158	11,192	1,195
Dutch East Indies.....	352	416	602	1,251	757	821	963	1,323	771
Asiatic Russia.....	31	21	151	2,927	451	789	5,123	136	31
Philippine Islands.....	640	635	1,128	1,112	1,661	1,841	2,491	3,180	1,195
Great Britain.....	177	222	3,072	10,169	4,127	8,343	6,571	3,975	217
Cape Colony and Natal.....	109	115	265	1,527	1,368	2,633	4,000	5,312	525
Australia.....	130	126	397	2,520	920	1,987	1,041	2,013	211
Other countries.....	704	638	781	1,789	3,518	4,170	2,881	4,295	385
Total.....	10,862	10,310	12,363	34,028	26,265	32,298	39,071	36,044	5,463
Total quantity in 1,000 dozen	8,039	7,698	7,721	15,294	12,276	9,646	7,864	6,173	1,321

Increase in value, 1919, compared with 1913..... Per cent. 260.00

Buttons.—The manufacture of buttons, especially pearl, has developed very rapidly in Japan, the bulk of the product finding a market through export channels. England, India, and the United States are the principal customers for Japanese shell buttons. During the war the supplies from certain exporting countries were reduced or eliminated and Japan found an increased foreign demand for her surplus product. According to United States official figures, in 1919 Japan supplied 75 per cent and in 1920, 70 per cent of the total button imports into this country. During these two years the Japanese imports represented 96 and 99 per cent, respectively, of the total imports of pearl buttons into the United States. The large increase in exports to the United States was due to the attractive price of the Japanese product, and to the lower tariff duty on shell buttons. The total exports of buttons from Japan for the years ending June 30, 1919, 1920, and 1921 were, respectively, 10,982,000 yen, 11,968,000 yen, and 5,862,000 yen.

Exports of buttons, 1913-1921.

[Values in thousands of yen.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
China.....	222	174	189	388	1,062	449	558	306	240
British India.....	195	316	668	1,166	837	1,786	1,008	1,037	322
Philippine Islands.....	13	53	143	321	204				17
Great Britain.....	965	484	1,516	1,805	1,512	3,652	961	1,500	157
France.....	169	107	137	284	443	282	2,370	520	17
United States.....	113	376	471	1,642	2,096	2,299	2,546	2,073	338
Canada.....	62	94	94	300	398	374	259	461	49
South America.....	50	8	17	121	312	677	737	1,454	97
Australia.....	192	257	354	700	717	648	410	774	54
Other countries.....	1,331	858	419	790	2,677	1,751	1,437	1,857	521
Total.....	3,312	2,727	4,008	7,517	10,258	11,918	10,285	9,982	1,845
Percentage exported to the United States.....	3.41	13.79	11.75	21.84	20.43	19.29	24.75	20.77	21.03

Increase in total exports of buttons, 1918 over 1913, 260 per cent.

Hats, caps, and bonnets.—The value of hats, caps, and bonnets exported from Japan in 1920 showed an increase over 1913 of 21 per cent. Imitation Panamas, a paper product, are the most important items of export, though in recent years the value of straw and felt hats exported has materially increased. The trade in this class of commodities increased rather moderately during the war and the years immediately following, and then suffered a distinct decline during the first half of 1921. The United States is the principal market for these articles, though Great Britain and China also are buyers of substantial amounts. The exports of hats, caps, and bonnets by classes and countries of destination are shown in the following table:

Exports of hats, caps, and bonnets, 1913-1921.

[Values in thousands of yen.]

Hats, caps, and bonnets.	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).	Percent increase or de- crease (-) 1913- 1920.
Felt.....		107	60	96	450	853	723	1,196	294	.....
Straw.....	546	176	160	361	421	782	1,392	1,413	315	159
Imitation Panamas.....	4,030	3,645	2,791	5,456	4,331	3,359	4,310	2,501	184	-38
Other.....	1,044	311	298	751	779	1,722	2,155	1,707	211	63
Total.....	5,620	4,289	3,309	6,664	5,981	6,716	8,580	6,817	1,004	21
Exported to—										
China.....	857	335	251	272	516	1,284	1,458	915	214	7
Hongkong.....	171	108	82	114	307	389	386	265	30	55
British India.....	32	11	39	269	90	237	462	447	15	1,297
Dutch East Indies.....	31	38	92	270	427	568	445	608	278	1,861
Great Britain.....	61	108	128	142	66	586	1,998	799	56	1,210
United States.....	3,716	3,089	1,986	4,386	3,150	1,252	1,751	1,800	84	-51
Australia.....	91	225	522	821	476	467	264	232	30	155
Other countries.....	692	335	209	390	941	1,913	1,826	1,751	297	153
Total.....	5,620	4,239	3,309	6,664	5,981	6,716	8,580	6,817	1,004	21
Percentage exported to United States..	66.13	72.89	60.04	65.82	52.66	18.64	20.41	26.41	8.36	.....
Quantity of imitation Panamas (thousands of dozens).....	184	295	255	479	455	386	415	246	25	34
Value, in yen per dozen.....	21.90	12.36	10.95	11.39	9.52	17.40	20.67	27.67	40.16	.....

Boots and shoes.—Previous to 1907 the manufacture of boots and shoes in Japan by modern methods was practically negligible but since then the industry has grown rapidly. The footwear for the army and navy and most of the boots and shoes for native and foreign residents are now locally made and in addition considerable quantities of shoes were manufactured for the Russian armies during the war. The leading industrial boot and shoe cities are Yokohama, Tokyo, and Kobe and in 1917 about 2,170,000 pairs were produced. In the peak year 1917, exports of leather boots and shoes amounted to 987,468 pairs valued at 4,705,000 yen. In 1920 the quantity exported declined to 581,544 pairs valued at 4,067,000 yen.

PAPER, PAPER MANUFACTURES, BOOKS, ETC.

(Group XI of imports and Group X of exports.)

It is an interesting fact that the first paper was made from wood pulp. The discovery of the process is attributed to the Chinese, who manufactured a paper from bamboo pulp by a hand process resembling in principle the modern machine method. Paper making from pulp was introduced into Europe from China by way of the Arabs and Moors, the latter making paper by this method in Toledo as early as 1085 A. D. The art of producing paper from pulp derived from wood, however, was lost to Europe, cotton and linen rags being for centuries practically the sole raw material, and was not rediscovered until about the middle of the nineteenth century. From olden times the Japanese have been manufacturing tough paper from fibers of certain shrubs, but the great expense necessarily made the output very limited. The manufacture of European paper in Japan began in 1872 and since then the industry has developed rapidly. In recent years many new factories have sprung up manufacturing chiefly cardboards, printing, and packing paper, and a remarkable increase in production has been realized.

Trade in pulp, paper, and manufactures thereof, 1913-1921.

[Values in thousands of yen.]

Year.	Imports.		Exports.		Year.	Imports.		Exports.	
	Value.	Per cent of total import trade.	Value.	Per cent of total export trade.		Value.	Per cent of total import trade.	Value.	Per cent of total export trade.
1913.....	13,039	1.79	5,435	0.86	1918.....	17,765	1.06	37,437	1.91
1914.....	10,446	1.75	4,708	.80	1919.....	32,098	1.47	36,513	1.74
1915.....	9,796	1.84	6,352	.90	1920.....	36,192	1.55	34,367	1.76
1916.....	16,240	2.15	14,351	1.27	1921 (January- June).....	10,487	1.31	12,586	2.19
1917.....	8,420	.81	22,119	1.38					

Prior to 1917 the imports of pulp, paper, and manufactures thereof into Japan always exceeded the exports, but with the exception of 1920, in recent years the reverse has been true and the value of exports has exceeded the imports.

The import trade in paper and similar materials in 1920 was valued at 36,192,000 yen compared with 13,038,000 yen in 1913, an increase of 178 per cent. The value of exports reached the peak in 1918 and showed an increase over 1913 of 589 per cent; the year 1920 showed a slight decline, but an increase of 532 per cent as compared with 1913. The group, when compared with the total value of Japanese trade, is of small importance. It will be noted that the imports in relation to the total import trade declined from 1.79 per cent in 1913 to 1.55 per cent in 1920. On the other hand, the exports increased from 0.86 per cent of total export trade in 1913 to 1.76 per cent in 1920, and to 2.19 per cent for the first six months of 1921.

IMPORTS.

Wood pulp.—Wood pulp is included with the paper group in the figures for imports and is the most important item therein; whereas the exports consist entirely of manufactured articles.

Imports of pulp for paper making, 1913-1921.

[Quantities in thousands of kin; values in thousands of yen.]

Year.	Total.		From Sweden.		From Norway.		From Canada.		From Germany.	
	Quantity.	Value.	Value.	Per cent (in value) of total.	Value.	Per cent (in value) of total.	Value.	Per cent (in value) of total.	Value.	Per cent (in value) of total.
1913.....	79,762	4,620	1,255	27.16	382	8.27	354	7.66	2,176	47.10
1914.....	76,175	4,574	1,695	37.06	595	13.01	257	5.62	1,629	35.61
1915.....	90,193	5,975	3,659	61.24	956	16.00	706	11.82	68	1.14
1916.....	96,969	9,018	5,697	63.17	1,345	14.91	656	7.27	73	.81
1917.....	24,080	2,801	446	15.92	26	.93	1,491	52.23	.....	.....
1918.....	48,333	6,836	418	6.11	.....	.....	4,079	59.68	4	.....
1919.....	68,176	10,687	2,530	23.67	167	1.56	3,782	35.39	.....	.....
1920.....	78,637	13,190	6,575	49.84	195	1.48	3,431	26.01	.....	.....
1921 (January-June).....	23,500	3,591	261	7.27	2	.....	2,996	83.42	.....	.....

Average value of pulp, in yen per kin: 1913, 0.06; 1914, 0.06; 1915, 0.07; 1916, 0.09; 1917, 0.12; 1918, 0.14; 1919, 0.15; 1920, 0.16; 1921, 0.15.

The outbreak of the war produced a panic among the manufacturers of paper in Japan, where the industry had been mainly dependent on Germany, Sweden, Norway, and Canada for pulp, there being but one pulp mill at that time in Japan. When the war threatened to shut off the pulp imports, importation considerably in excess of immediate domestic requirements was resorted to in 1915 and 1916, notwithstanding an increase of 50 per cent in the price of this commodity in the latter year. Imports of pulp declined from 96,969,000 kin in 1916 to 24,080,000 kin in 1917. Shortage of shipping, the unusually large imports of the two preceding years, and increased domestic production all contributed to this decline. In 1920 the importation of pulp increased and nearly equaled that of 1913 in quantity, but in value was about three times as great. With the elimination of Germany as a source of supply the imports from other countries, especially Sweden, Canada, and the United States increased. According to United States official statistics, during the year 1919 pulp exports from the United States to Japan amounted to 4,386 long tons, valued at \$480,389. In 1920 there was a decline and exports from the United States fell to 2,861 long tons, valued at \$344,000.

*Paper pulp consumption in Japan.*¹—The following figures, indicating the approximate net consumption of pulp in Japan, show that consumption doubled during the period of 1913-1918, while the imports during the same time decreased materially.

¹ Special report on Japanese Wood Pulp Manufacture, James F. Abbott, Reserve Bulletin No. FE-68. Supplementary to Commerce Reports, Apr. 8, 1919.

Paper pulp.

Year.	Domestic production. ¹	Imports.	Net consumption.
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
1913.....	85,050	53,850	138,900
1914.....	100,700	60,900	161,450
1915.....	125,050	60,150	185,200
1916.....	151,150	64,550	215,800
1917.....	189,350	16,350	205,550
1918.....	231,550	32,200	263,750

¹ In 1917 Japan exported 4,150 tons.

² The following table shows the distribution of pulp production among the mills of Japan in 1918. Since these figures were compiled several new mills have been opened, thus increasing considerably the pulp-producing capacity of the country. The industry is carried on principally in Karafuto and the islands of Hokkaido and Formosa.

	Mechanical.	Sulphite.	Total.		Mechanical.	Sulphite.	Total.
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>		<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
Chuo Seishi.....	2,093	2,338	4,431	Fuji Seishi.....	30,015	15,104	45,119
Tokai Shiryō.....	8,500	.....	8,500	Kiso Kogyo.....	3,829	.....	3,829
Yokkaichi Seishi.....	5,065	2,893	7,958	Hokutsu Seishi.....	1,178	.....	1,178
Kyushu Seishi.....	5,823	4,432	10,255	Tokyo Itagami.....	932	.....	932
Nippon Kagaku Seishi.....	.....	51,520	51,520	Miura Bussan.....	.....	275	275
Karaguto Kogyo.....	.....	56,100	56,100				
Oji Seishi.....	44,127	39,451	83,578	Total.....	101,601	172,273	273,874
Kumano Seishi.....	39	160	199				

^a Estimated.

^b A discrepancy between these figures and those in the preceding table will be noted. Inaccuracies in the estimates may account for this.

Almost without exception, the machinery used in Japan's pulp and paper mills is American. In addition to machinery, rosin, grindstones, wire cloth, and felt are all supplied by the United States. The timber chiefly used for pulp is a white spruce which is very abundant in Hokkaido and Sakhalin.

In 1918 as compared with 1913 the cost of essential raw material used in pulp making had more than doubled and the total cost of production almost tripled in Japan. The increase in the cost of labor, contributed largely to this latter fact. The unit value of pulp imports per kin increased from 0.06 yen in 1913 to 0.14 yen in 1918. The high cost of production has caused the Japanese to seek substitutes for wood pulp. New companies have been established recently for the manufactures of pulp through the utilization of seaweed. It is claimed that the pulp obtained is extraordinarily tough and strong, can be produced by a process similar to that used in the manufacture of wood pulp, and may be utilized for first-class foreign and Japanese paper.

Paper, pasteboard, cardboard, books, etc.—The table below shows in detail the value of the various classes of paper imported by Japan, 1913–1920, and during the first six months of 1921. Most important in the imports of paper and manufactures thereof, were printing paper, packing paper, pasteboard and cardboard, books and periodicals. Since 1917 the value of paper and paper manufactures imports has materially increased, the total value in 1920 being 23,000,000 yen as compared with 8,400,000 yen in 1913, or an increase of 173 per cent. The imports of practically all items, with the exception of books and periodicals, showed a decline in value during the first six months of 1921.

Imports of pulp and paper, by varieties, 1913-1921.

[Values in thousands of yen.]

	1913	1914	1915	1916	1917	1918	1919	1920	1921 (Jan.-June).
Pulp for paper making.....	4,620	4,574	5,975	9,018	2,801	6,835	10,687	13,190	3,391
Paper:									
Printing—									
Weighing not more than 58 grams per square meter.....	841	622	90	145	51	1,040	1,980	753	171
Other.....	2,705	1,435	1,106	2,005	866	2,898	5,687	5,058	1,271
Writing.....	444	350	297	527	377	579	1,955	995	419
Packing.....	690	563	470	929	931	2,013	3,875	5,335	1,201
Imitation Japanese and tissue.....	799	718	279	543	281	251	479	1,255	317
Fancy.....	456	281	234	190	439	575	787	677	167
Bromide and platinum...	123	131	164	282	320	442	793	846	598
Pasteboard and cardboard...	393	327	175	511	311	912	1,626	1,358	309
Books, periodicals, etc.....	618	504	428	828	853	638	980	1,832	1,160
All other paper and manufactures of.....	1,350	941	569	1,263	1,191	1,581	3,239	4,893	1,283
Total.....	13,039	10,446	9,787	16,240	8,421	17,764	32,088	36,192	10,487

Imports of paper¹ by countries of origin, 1913-1921.

[Values in thousands of yen.]

Year.	Total.	From Germany.	From Great Britain.	From Sweden.	From Norway.	From United States.	Per cent supplied by United States.
1913.....	7,237	2,245	2,155	1,017	193	293	4.05
1914.....	4,886	1,729	1,460	895	130	164	3.36
1915.....	3,028	55	1,589	645	186	436	14.40
1916.....	5,827	24	2,696	961	495	1,472	25.26
1917.....	4,098	.....	1,221	515	224	1,995	48.68
1918.....	9,395	.....	910	.....	.....	8,055	85.74
1919.....	18,387	.....	1,691	.....	.....	15,678	85.27
1920.....	17,408	.....	3,614	.....	.....	8,770	50.38
1921 (January-June).....	4,709	.....	983	.....	.....	1,791	38.03
Per cent increase or decrease (-), 1913-1919.....	154	.....	-21.53	.....	.....	5,251.00	.....

¹ Not including pulp or manufactures of paper.

Importations of pulp, pasteboard, match paper, emery paper, and other manufactures are not included in the above figures. Germany and Great Britain, prior to the war, were the two principal sources of supply for the varieties of paper included in the preceding table, but since 1916 imports from Germany have been negligible. A comparison of the imports of these types of paper from Great Britain in the years 1913 and 1919 shows a decrease in the latter year of 21.5 per cent in value, while, on the other hand, those from the United States indicate an increase of 5,251 per cent. Total imports of paper of these varieties reached the greatest value, 18,387,000 yen, in 1919, an increase over 1913 of 153 per cent, and 85 per cent of this trade was controlled by the United States in that year. During the first six months of 1921 there was a marked falling off in the value of

imports, the United States, however, retaining the greatest proportion of this trade.

Production of paper in Japan.—Since 1912 the paper industry of Japan has expanded very rapidly, and the following table shows the annual production from 1912 through 1920. The most important variety of paper included under this head in 1920 was print paper comprising newsprint and book paper of both the better and cheaper grades. Other varieties manufactured in smaller quantities are Torinoko, rolled rice paper, colored paper, wrapping paper, Toshi (Chinese rice paper), and miscellaneous. The total production of paper in 1920 amounted to 565,926,000 pounds as compared with 188,029,858 pounds in 1913, an increase of 200 per cent.

Production of paper in Japan.

Year.	Pounds.	Year.	Pounds.
1912.....	188,029,858	1917.....	305,717,535
1913.....	230,323,517	1918.....	372,033,823
1914.....	263,182,086	1919.....	519,141,000
1915.....	292,924,197	1920.....	565,926,000
1916.....	311,253,680		

EXPORTS.

The value of Japanese exports of paper, by kinds, and countries of destination is given in detail in the following tables:

Exports of paper, by kinds, 1913-1921.

[Values in thousands of yen.]

Kinds.	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).	Per cent in- crease, 1913- 1918.
Printing.....	499	630	1,469	4,670	7,213	5,053	6,461	5,922	3,481	912
Pasteboard.....	312	317	424	986	1,354	4,664	2,901	3,253	801	1,394
Packing.....	35	46	96	357	819	2,282	1,301	1,657	448	6,420
Wall.....	171	145	34	69	142	130	252	172	.....	120
Other foreign.....	71	73	240	1,212	2,039	7,239	5,145	5,075	1,831	10,095
Cigarette.....	.....	.....	.....	.....	1,590	2,991	2,480	2,264	1,043	.....
Gampi and usuyo.....	402	336	258	378	574	697	641	1,178	272	68
Yoshino and tengujo.....	149	111	122	128	163	204	544	290	113	37
Torinoko.....	348	177	235	236	472	1,646	1,899	1,599	596	373
Renshi.....	470	322	327	533	723	2,260	2,310	348	174	381
Toyo.....	141	137	105	126	156	154	152	86	.....	9
Haushi and mino.....	161	173	272	268	320	433	730	598	217	169
Japanese toilet.....	87	76	94	198	253	441	427	431	229	407
Other Japanese.....	248	285	670	631	277	270	218	252	99	9
Total.....	3,094	2,828	4,346	9,782	16,095	28,470	25,402	23,125	9,303	820

¹ Decrease.

Exports of paper, by countries of destination, 1913-1921.

[Values in thousands of yen.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).	Per cent in- crease 1913- 1921.
China.....	1,341	1,302	2,148	4,687	6,354	9,576	10,274	9,604	4,758	614.10
Kwantung.....	529	476	763	1,333	1,925	2,973	4,745	2,606	1,108	462.01
Hongkong.....	75	79	246	723	1,866	2,040	1,971	2,429	1,502	2,620.00
British India.....	137	115	227	603	2,287	3,867	1,391	2,918	386	2,722.70
Straits Settlements..	24	17	86	164	342	1,078	282	626	138	4,362.00
Asiatic Russia.....	19	14	142	1,086	269	914	3,305	409	77	4,710.60
Great Britain.....	273	227	220	221	174	205	479	662	107	124.90
United States.....	397	363	241	317	570	529	705	742	377	33.30
Australia.....	58	54	85	216	337	1,026	360	853	199	1,669.00
Other countries.....	241	180	188	432	1,971	6,263	1,893	2,275	640	2,498.35
Total.....	3,094	2,828	4,346	9,782	16,095	28,470	25,402	23,125	9,303	820.00

PER CENT DISTRIBUTION.

China.....	43.34	46.07	49.44	47.91	39.48	33.63	40.44	41.53	51.17	.....
Kwantung.....	17.10	16.82	17.54	13.62	11.96	10.44	18.68	11.27	11.91	.....
Hongkong.....	2.42	2.78	5.67	7.39	11.59	7.17	7.76	10.51	16.16	.....
British India.....	4.44	4.06	5.23	6.15	14.21	13.57	5.46	12.62	4.16	.....
Straits Settlements..	.77	.60	1.98	1.67	2.13	3.79	1.11	2.71	1.49	.....
Asiatic Russia.....	.62	.49	3.25	11.10	1.67	3.21	13.02	1.77	.84	.....
Great Britain.....	8.82	8.04	5.04	2.25	1.08	.72	1.88	2.86	1.16	.....
United States.....	12.82	12.83	5.59	3.24	3.54	1.86	2.78	3.21	4.06	.....
Australia.....	1.88	1.92	1.96	2.22	2.09	3.60	1.42	3.68	2.16	.....
Other countries.....	7.79	6.39	4.30	4.45	12.25	22.01	7.45	9.84	6.89	.....
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	.....
Percentage exports of paper are of total export trade.	.49	.48	.61	.87	1.00	1.45	1.21	1.19	1.62	820.00

¹ Decrease.

The highest peak, in value, of paper exported from Japan was reached in 1918 with an increase over 1913 of 820 per cent. Since 1918 there has been a decline, but even with this reduction the value of exports for the first six months of 1921 is more than triple that of the whole year 1913. China is the principal market for paper exported from Japan and the figures for the latest period (January-June, 1921) show that 51 per cent went to that country.

When compared with the total value of the Japanese export trade the exports of paper are of small importance. Since 1913, however, this trade has continually been growing in importance and the latest data show that exports of paper amount to 1.62 per cent of the total export trade.

Exports of paper manufactures, 1913-1921.

[Values in thousands of yen.]

Articles.	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
Blank books and notebooks..	99	90	120	310	486	1,256	1,124	865	198
Mouthpieces for cigarettes...	372	202	202	207	159	284	326	401	31
Paper napkins.....	245	188	192	289	302	410	404	450	109
Labels.....	116	131	166	364	653	1,169	1,571	2,217	653
Playing cards.....					403	532	255	472	50
Photographs, post cards, and pictures.....	235	108	96	115	176	158	199	227	.....
Books and journals.....	484	414	405	493	603	649	1,245	1,267	551
Printed matter.....	212	262	172	328	674	1,157	1,474	1,491	534
Waste paper.....					1,195	808	1,129	829	255
All other.....	576	483	653	2,462	1,373	2,744	3,384	3,021	800
Total.....	2,339	1,878	2,006	4,568	6,024	8,967	11,111	11,240	3,181

From 1914 to 1920 the value of the export trade in paper manufactures showed a constant and material growth amounting to 11,240,000 yen in 1920 as compared with 2,339,000 yen in 1913, an increase of 380 per cent. The increase in the exportation of blank and note books, labels, and printed matter is especially noticeable. In 1917, for the first time, exports of playing cards and of waste paper were enumerated separately, waste paper in that year being the largest single item among the exports of paper products. The bulk of these paper manufactures is sent to China and other Far Eastern countries.

In summarizing it may be stated that prior to the war the Japanese paper-making industry confined itself largely to papers of peculiar Japanese type, which were produced for home consumption or were exported under Japanese trade names. Very little foreign-type paper, such as printing, packing, and wall paper, was made or exported, while on the other hand there were, as has been shown, considerable imports into Japan. In 1917 the imports of printing paper were less than a million yen, but the exports, which in 1913 had been less than a half million yen, rose in 1917 to 7,213,000 yen, representing about one-third in value of all exports of paper and manufactures for that year. The year 1917 marks the peak in value of printing paper exported, but from the table it appears that 1921 will equal the record of 1917.

MINERALS AND MANUFACTURES THEREOF.

(Group XII of imports and Group XI of exports.)

The nonmetallic minerals entering into the foreign trade of Japan consist mainly of phosphorite (rock phosphate) and hard coal, which are imported, and soft coal and cement, which are exported. The coal imports (mainly hard coal) are chiefly from China, Kwantung, and French Indo-China. The soft coal is exported to China, Hong-kong, the Straits Settlements, and the Philippine Islands. The leading customers for cement are the Dutch East Indies, British India, and Kwantung.

The total foreign trade of Japan in nonmetallic minerals and manufactures thereof forms but a small part of the foreign trade of that country, the imports of this group of commodities constituting in 1920 only 2.11 per cent of the total imports, and the exports 2.95 per cent of the total exports of Japan, as measured in value.

The following table shows the foreign trade of Japan in this group of commodities taken as a whole, for each year from 1913 to 1920 and the first half of 1921:

Trade in nonmetallic minerals and manufactures thereof, 1913-1921.

[Values in thousands of yen.]

Year.	Imports.		Exports.		Year.	Imports.		Exports.	
	Value.	Per cent of total import trade.	Value.	Per cent of total export trade.		Value.	Per cent of total import trade.	Value.	Per cent of total export trade.
1913.....	14,312	1.94	24,999	3.95	1918.....	30,867	1.85	41,356	2.11
1914.....	15,370	2.58	25,765	4.35	1919.....	38,339	1.76	46,706	2.23
1915.....	9,322	1.75	22,191	3.13	1920.....	49,334	2.11	57,518	2.95
1916.....	10,386	1.37	24,376	2.16	1921 (January-June).....	14,268	1.79	23,847	4.16
1917.....	21,990	2.12	31,387	1.96					

Increase in—		Per cent.	Increase in—		Per cent.
Imports, 1917 compared with 1913.....		54	Imports, 1920 compared with 1913.....		245
Exports, 1917 compared with 1913.....		26	Exports, 1920 compared with 1913.....		130

While there has been a marked increase in the value of the imports (1913-1920, 245 per cent) as well as the exports (1913-1920, 130 per cent) of this group of commodities during the later years of the war and the period since the armistice, the ratio to total imports and total exports, respectively, have not changed materially, thus indicating that these increases were in accord with the general development of Japanese foreign trade. That these increases were due rather to the higher prices of the commodities than to greater volume, however, can be illustrated in the advances in prices of coal from an average import value of 7.04 yen per ton in 1914 to 26.56 yen per ton in 1919.

IMPORTS.

The available statistics of imports of nonmetallic minerals during the period from 1913 to 1921 show the value of 15 articles separately. Of these values, imports of hard coal constituted 28 per cent in 1913 and 40 per cent in 1920, while phosphorite fell from 60 per cent in 1913 to only 35 per cent in 1920. Those next in importance in 1920 were precious stones, asbestos, asbestos yarn, coke, metal polishes, cryolite, grindstones and whetstones, talc and soapstones, other mineral substances for grinding and polishing, gypsum, and clay, in the order named. Of these, precious stones imported from Holland and asbestos and asbestos yarn have become important since the latter part of the war.

The above facts are shown in the following table of imports by articles, each year from 1913 to 1920, and for the first half year of 1921:

Imports of nonmetallic minerals and manufactures thereof, 1913-1921.

[Values in thousands of yen.]

Articles.	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
Mineral substances for grinding or polishing			47	127	150	306	492	188	67
Metal polishes	75	62	68	105	192	161	230	356	57
Grindstones or whetstones, artificial	92	72	70	100	183	539	768	330	110
Precious stones			55	604	1,414	2,341	4,033	6,452	532
Asbestos and manufactures thereof in lump, powder, or fiber	73	61	246	820	2,271	1,607	1,592	1,359	169
Asbestos yarn	64	47				399	617	812	249
Other yarn	99	80	127	236	246				
Talc and soapstone			109	174	354	174	333	325	134
Phosphorite (rock phosphate)	8,618	7,116	4,403	2,731	5,099	5,070	8,577	17,099	4,102
Gypsum	29	34	44	97	137	190	150	159	
Cryolite			77	171	8	17	255	336	5
Plumbago	46	25							
Clay			82	270	431	145	112	133	
Coal	4,034	6,691	3,458	4,236	9,038	15,764	18,588	19,918	7,567
Coke	422	325	84	61	1,608	3,110	1,264	451	354
All other minerals and manufactures thereof	790	857	452	654	850	1,044	1,278	1,416	872

Coal.—As stated previously coal imports constituted 40 per cent of the value of total imports of nonmetallic minerals in 1920, having ranked first in this group since 1916, and being exceeded only by imports of phosphorite during the preceding years. Of the total value of Japan's coal imports in 1920 (19,918,000 yen), China, mainly from the northern part, supplied 12,665,000 yen or 64 per cent, French Indo-China 4,704,000 yen or 24 per cent, and Kwantung 2,465,000 yen or 12 per cent. During 1913, 1914, and 1915 Great Britain also furnished considerable coal to Japan, but in the subsequent years these shipments became insignificant. China supplied over half of the coal imported into Japan during each of the years 1914 to 1920.

The following table shows the value of coal imports into Japan for each of the years 1913 to 1920, and for the first half of 1921, by countries of origin:

Imports of coal, 1913-1921.

[Values in thousands of yen.]

Imported from—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (Jan.-June.)
China	1,627	4,733	2,733	2,236	5,439	9,615	11,252	12,665	4,246
Kwantung	2,086	1,322	444	866	1,834	3,275	3,548	2,465	1,722
French Indo-China	155	380	927	1,066	1,725	2,760	3,700	4,704	1,599
Great Britain	166	217	304						
Other countries		39	60	68	40	114	88	84	
Total	4,034	6,691	4,458	4,236	9,038	15,764	18,588	19,918	7,567
Total quantity in thousands of tons	572	930	610	552	707	762	700	797	374
Average value, in yen per ton	7.05	7.04	7.31	7.67	12.78	20.69	26.56	25.00	20.23

Increase in—	Per cent.	Increase in—	Per cent.
Total value, 1917, compared with 1913	124	Total value, 1920, compared with 1913	394
Quantity, 1917, compared with 1913	23	Quantity, 1920, compared with 1913	39
Unit value, 1917, compared with 1913	81	Unit value, 1920, compared with 1913	254

While the value of importations of coal during these eight years has advanced 394 per cent, the increase in quantity has been only 39 per cent when 1913 is compared with 1920, and the tonnage imports during the year 1914 actually exceeded those of 1920 by 153,000 or 19 per cent. This disparity is due to the 254 per cent advance in the average import unit price of 7.05 yen per ton in 1913 to 25.00 yen per ton in 1920. A price recession, however, is evident from the 1919 high yearly average of 26.56 yen per ton to 20.23 yen per ton average for the first six months of 1921.

Although the importations of coal are only a small per cent of the quantity mined in Japan, the home production is chiefly low grade, noncoking bituminous which is generally not serviceable in certain lines of industry, particularly in smelting. The importations of coking bituminous and anthracite coal, therefore, have played an important part in Japanese industry.

A factor in the Japanese coal situation worthy of consideration is the hard coal deposits in Korea where, in the field owned by the Japanese Government, an annual production of 150,000 to 200,000 tons is reported, and Japanese statistics show that Korea has shipped considerable quantities of coal to Japan from 1913 to 1919, as follows:

	Tons.		Tons.
1913-----	91, 272	1917-----	123, 812
1914-----	125, 200	1918-----	107, 762
1915-----	162, 927	1919-----	89, 023
1916-----	120, 113		

The available resources of hard coal in Korea are not large, but could perhaps temporarily serve the needs of Japan if the latter were cut off from foreign sources.

Phosphorite (phosphate rock).—The value of imports of phosphorite, a mineral used almost exclusively for fertilizer, increased from 8,618,000 yen in 1913 to 17,099,000 yen in 1920, the latter being nearly double the pre-war figure. This is due, however, to the increase in unit price of the commodity as the quantity imported in 1920 was about 13 per cent less than that of 1913. In 1918 the imports by quantity fell to slightly more than one-fourth of the pre-war figure of 1913. Up to and including the first year of the war the United States, Great Britain, and Egypt were the three leading sources of this supply, but according to official statistics, since 1916 the North Pacific islands have been furnishing considerably over 80 per cent of the total imports. When Japan took over the administration of these islands, formerly controlled by Germany, they found that on the island of Anguar the Germans had developed machinery for the production of phosphates, which enabled the Japanese to obtain this mineral without much delay or preliminary expenditure.

EXPORTS.

The value of Japanese exports of nonmetallic minerals and their manufactures in 1920 was nearly 3 per cent of the value of the total export trade of the country. As the two leading commodities, coal and cement, dominate this group, being together over 96 per cent of the total value in 1920, only these need be discussed. The following

table gives the total quantities and values of the exports of these commodities and all others in the group collectively for selected years:

Exports of minerals and manufactures thereof, 1913, and 1917-1921.

[Values in thousands of yen.]

Article and unit.	1913		1917		1918	
	Quan- tity.	Value.	Quan- tity.	Value.	Quan- tity.	Value.
Coal:						
Lump.....1,000 tons..	3,275	20,696	2,325	22,842	1,854	27,904
Dust.....do....	564	2,633	466	3,612	325	4,106
Coke.....do....	7	134	3	113	7	366
Portland cement.....1,000 kin..	44,691	656	153,661	2,678	258,741	6,010
Other minerals and manufactures thereof.....do....		581		2,142		2,970
Average unit value of:						
Lump coal.....		6.41		9.82		15.05
Dust coal.....		4.67		7.75		12.63
Cement.....		0.01		0.02		0.02

Article and unit.	1919		1920		1921 (January-June).	
	Quan- tity.	Value.	Quan- tity.	Value.	Quan- tity.	Value.
Coal:						
Lump.....1,000 tons..	1,687	32,209	1,727	37,892	1,161	19,972
Dust.....do....	314	5,514	402	7,309		
Coke.....do....	2	89	1	20		
Portland cement.....1,000 kin..	286,439	6,545	330,953	10,060	120,055	3,220
Other minerals and manufactures thereof.....do....		2,348		2,237		655
Average unit value of:						
Lump coal.....		19.09		21.94	}	17.20
Dust coal.....		17.56		18.18		
Cement.....		.02		.03		

Coal.—In 1913 the value of exports of coal amounted to 23,629,000 yen, which was 3.7 per cent of the total exports of Japan, and by 1920 coal-exports had reached over 45,000,000 yen, but fallen to 2.3 per cent of the total value of exports. For the first six months of 1921, however, exports of coal being nearly 20,000,000 yen in value, reached 3.5 per cent of the total exports for the period. The advances in the average price of exported coal in 1913 of 6.41 yen per ton for lump and 4.67 yen for dust to 21.94 yen per ton for the first and 18.18 for the latter in 1920, accounts for the above increases in export values, as the quantity exported fell from 3,840,000 tons in 1913 to 2,130,000 tons in 1920. While the average yearly price of import coal per ton reached the peak in 1919 and since has fallen considerably, the average price of exported coal continued to advance in 1920. During the latter part of the year, however, export prices began to drop and in the first six months of 1921 had reached an average price of 17.20 yen per ton. These exports of soft coal in the last few years have formed but a small portion of the home production, which for selected years in quantity and value is as follows:

Year.	Tons.	Yen.	Year.	Tons.	Yen.
1913 ¹	21,315,000	70,956,000	1919 ²	31,271,000	442,541,000
1917 ¹	26,361,000	140,010,000	1920 ²	29,245,000	418,076,000

¹ Japan Year Book, 1919-20.² British Board of Trade Journal, Sept. 15, 1921.

In comparing these figures with total exports of coal it is apparent that in 1913 Japan exported coal equal to 18 per cent of her total production, but by 1920 had reduced this ratio to 7.2 per cent. As imports have increased moderately and production substantially since 1913 these ratios serve to indicate the increased consumption of coal in the industries of the country.

The value of exports of Japanese coal by countries from 1913 to June 30, 1921, and the percentage received by each country, is given in the following table:

Exports of coal (excluding coke) 1913-1921.

[Values in thousands of yen.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June)
Kwantung.....						18	1,570	3,099	429
China.....	7,333	7,459	5,851	6,549	9,738	10,872	12,840	13,983	6,170
Hongkong.....	6,277	6,773	4,484	4,954	6,740	6,489	6,943	7,790	4,342
British India.....	1,045	511	277	157	179	515	325	135	201
Straits Settlements.....	3,594	3,649	3,269	3,195	4,351	6,966	6,640	7,867	4,819
Dutch East Indies.....	639	1,056	1,500	878	633	1,074	844	1,460	888
French Indo-China.....	237	406	1,192	345	671	630	201	1,879	193
Asiatic Russia.....	422	493	631	355	338	468	2,869	1,312	136
Philippine Islands.....	2,302	2,172	2,098	2,691	3,385	4,599	4,959	6,678	2,092
United States.....	1,111	633	63	111	97		18		
Australia.....				173					
Hawaii.....	147	187	775	774	187	145	256		
Other countries.....						233	259	1,997	752
Total.....	23,629	23,915	19,237	20,406	26,454	32,009	37,724	45,200	19,972

PER CENT DISTRIBUTION.

	1913	1914	1915	1916	1917	1918	1919	1920	1921
Kwantung.....						0.05	4.16	6.86	2.15
China.....	31.04	31.19	30.41	32.09	36.80	33.97	34.04	30.94	30.54
Hongkong.....	26.56	28.33	23.31	24.28	25.48	20.27	18.40	17.24	21.24
British India.....	4.63	2.14	1.44	.77	.67	1.61	.86	.29	1.21
Straits Settlements.....	15.21	15.26	16.99	15.66	16.45	21.77	17.60	17.40	24.63
Dutch East Indies.....	2.70	4.41	7.80	4.30	2.39	3.36	2.24	3.23	4.35
French Indo-China.....	1.00	1.70	1.00	1.69	2.54	1.97	.53	1.94	.96
Asiatic Russia.....	1.79	2.06	3.28	1.74	1.28	1.46	7.61	2.90	.58
Philippine Islands.....	9.74	9.08	10.91	13.18	12.79	14.37	13.14	14.78	10.47
United States.....	4.70	2.65	.33	.54	.37		.05		
Australia.....				.85					
Hawaii.....	.62	.78	4.03	3.79	.71	.45	.68		
Other countries.....	2.01	2.40	.50	1.11	.52	.72	.69	4.42	3.77
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Total quantity in thousands of tons.....	3,840	3,558	2,901	2,993	2,791	2,180	2,001	2,130	1,160
Average value, yen per ton.....	6.15	6.72	6.63	6.75	9.48	14.68	18.85	21.22	17.30
Per cent exports of coal are of total export trade.....	3.74	4.05	2.72	1.81	1.65	1.63	1.80	2.32	3.48

Per cent.

Increase in total value, 1917 compared with 1913.....	52
Decrease in quantity, 1917 compared with 1913.....	52
Increase in unit value, 1917 compared with 1913.....	54
Increase in total value, 1920 compared with 1913.....	91
Decrease in quantity, 1920 compared with 1913.....	44
Increase in unit value, 1920 compared with 1913.....	215

China, mainly central China, has furnished the greatest market for Japanese coal, having received over 30 per cent of the total exported each year since 1913, and reaching the maximum of 36.8 per cent in 1917. Hongkong also has taken considerable Japanese coal, ranking second, often a close second, to China each year except for 1918 and 1920, and the first six months of 1921, when the exports to the Straits Settlements were the greater. The fourth in importance as a market for Japanese coal is the Philippine Islands, which in 1920 purchased 14.78 per cent of the total coal exports.

Portland cement.—The war has brought about an enormous extension of the cement industry of Japan. Preceding the conflict, the cement industry was in a depressed condition, the home demand was not strong and little was exported. The general prosperity attending the war period, however, brought about a great home demand for building materials, including cement. At the same time, a ready foreign market for Japanese trade was created in British India, the Dutch East Indies, and the Philippine Islands, these countries being largely cut off from their former Occidental sources of supply. The increase in exports from 44.7 million kin in 1913 to 331 million kin in 1920, or 640 per cent, is evidence of the rapid development of Japan's foreign trade in this industry.

The following table shows the distribution by countries of the exports of Portland cement from 1913 to June 30, 1921:

Exports of Portland cement, 1913-1921.

[Values in thousands of yen.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (Jan- uary- June).
China.....				280	184	228	415	714	344
Kwantung.....	449	413	101	204	344	1,223	2,713	1,211	872
British India.....	18	75	730	584	431	781	604	12	423
Dutch East Indies.....		68	447	844	1,276	2,538	1,614	3,906	811
Philippine Islands.....	126	252	431	333	126	525	811	3,248	474
Australia.....	1	4	218	24					
Other countries.....	62	221	538	351	317	715	388	879	296
Total.....	656	1,033	2,465	2,719	2,678	6,010	6,545	10,060	3,220
Total quantity in thousands of kin.....	44,691	74,885	200,584	193,429	150,661	258,742	286,439	330,953	120,055

Per cent.

Increase in value 1920 compared with 1913..... 1,434
Increase in quantity 1920 compared with 1913..... 640

Before the war Kwantung was the chief market for Japanese cement, but by 1915 the exports to this Province had been surpassed by those to British India, the Dutch East Indies, and the Philippine Islands. The Dutch East Indies took the lead from British India in 1916 and has continued therefrom to be the main purchaser of Japanese cement, except during the year 1919 and the first six months of 1921, when she was surpassed by Kwantung. In 1920 the Philippine Islands purchased over 32 per cent of the total exports, being a close second to the Dutch East Indies, which secured almost 40 per cent. This great stimulation in export trade was a factor in the rapid rise in the home market prices, making domestic building construction much more expensive.

The peak in quantity and value of exports of Portland cement was reached during the first six months of 1920, and since then there has been considerable reduction. This is shown by the following figures of Japanese exports of Portland cement by semi-annual periods:

	Kin.	Yen.		Kin.	Yen.
1919—First six months...	137,514,000	3,110,000	1920—Second six months...	148,379,000	4,970,000
Second six months...	148,925,000	3,435,000	1921—First six months...	120,055,000	3,220,000
1920—First six months...	182,574,000	5,090,000			

POTTERY, GLASS, AND GLASS MANUFACTURES.

(Group XIII of imports and Group XII of exports.)

The pottery and glass industries have not been important factors in the foreign trade of Japan, imports being less than one-half of 1 per cent of the value of total imports since 1913 and the exports from 1.5 to 2.8 per cent of total exports.

In the pottery or ceramic industry, domestic needs have been largely met by home production, thus requiring small importations. Exportations, however, were valued at nearly 7 million yen in 1913 and at over 30 million yen in 1920. The domestic production of plate glass was not sufficient for home demands before the war, but other types of glass were supplied locally. During the two years preceding the war, imports and exports of glassware were nearly balanced, but by 1916 the home industry had begun expanding considerably, meeting enlarged domestic requirements, and aided by higher unit prices, increased the value of exports each year thereafter through 1920.

The following table gives the total imports and exports of pottery and glassware from 1913 to 1920 and for the first six months of 1921:

Imports and exports of pottery, glass, and glass manufactures, 1913–1921.

[Values in thousands of yen.]

Year.	Imports.				Exports.			
	Pottery.	Glass and manufactures thereof.	Total.	Per cent of total import trade.	Pottery.	Glass and manufactures thereof.	Total.	Per cent of total export trade.
Calendar year—								
1913.....	557	3,451	4,008	0.55	¹ 6,724	3,319	10,043	1.59
1914.....	319	2,576	2,895	.49	¹ 5,989	2,926	8,915	1.51
1915.....	79	1,173	1,252	.24	6,984	5,873	12,857	1.82
1916.....	254	2,290	2,544	.34	12,104	10,397	22,501	1.99
1917.....	561	2,530	3,091	.30	14,474	14,460	28,934	1.81
1918.....	302	2,457	2,759	.17	19,958	16,079	36,037	1.44
1919.....	255	4,109	4,364	.20	22,630	19,681	42,311	2.02
1920.....	358	5,241	5,639	.24	31,452	23,239	54,691	2.81
1921 (Jan.–June).....	43	3,558	3,601	.45	10,012	4,465	14,477	2.32
Year ending June 30—								
1919.....	416	3,753	4,169	.22	19,503	16,205	35,708	1.49
1920.....	177	4,310	4,517	.16	30,826	25,027	55,853	1.58
1921.....	308	6,178	6,486	.43	24,326	14,063	38,419	1.83

¹ Includes cloisonné.

During the period from 1913 to the year ending June 30, 1921, the import trade of these two groups of commodities developed rather divergent tendencies, pottery imports decreasing 45 per cent while glassware imports advanced 79 per cent. The first effect of the war

was to depress this trade, as imports of both pottery and glass were materially less in 1915 than they were in 1913. Exports of pottery remained about stationary during these three years while glass exports increased. Later, however, there was a great stimulation in domestic industries which is reflected in a continuous expansion of exports of both products up to the middle of 1920, after which a serious decline is evident.

During the years 1913-1920 the value of the exports of pottery increased from 6,724,000 yen to 31,452,000 yen, or 368 per cent, but fell to 24,326,000 yen for the 12-month period ending June 30, 1921. During the same period the value of the exports of glassware increased from 3,319,000 yen to 23,239,000 yen, or over 600 per cent, but declined as did pottery for the 12-month period ending June 30, 1921, to 14,093,000 yen. As the advance in glassware up to the peak of 1920 was relatively more rapid than in pottery, so has the drop since that period been more decisive.

Fire bricks.—The value of fire-brick importations declined from 406,000 yen in 1913 to 43,000 yen in 1915. Following that year there was an increase, the maximum being reached in 1917 when the imports were valued at 496,000 yen. Since then the general tendency of the trade has been to decline, with some variations from year to year, until the importations became negligible in the first half of 1921. This decline from 1917, which is not the case with most importations into Japan, was due partly at least to the relatively large development of the Japanese fire-brick industry, the value of whose output increased over fivefold from 1913 to 1917 and by the last year of the war had nearly met domestic requirements.

Before the war Belgium was the leading shipper of fire bricks to Japan, Germany was second, and Great Britain and the United States were third and fourth, respectively. Since 1915 the United States has been the largest individual source of supply.

Pottery.—Porcelain, chinaware, etc., have never been as important in the import trade of Japan as have fire bricks. From the importations in 1913 of 151,000 yen, most of which came from the United States and Great Britain, the trade dropped to 35,000 yen in 1915, but gradually increased thereafter to 108,000 yen in 1920. For the first six months of 1921 no imports were recorded. Statistics regarding this trade are found in the following table:

Imports of pottery and fire bricks, 1913-1921.

[Values in thousands of yen.]

	1913	1914	1915	1916	1917	1918	1919	1920 ¹	1921 ¹ (Jan.- Jun e).
Imported from:									
Great Britain.....	139	122	39	66	54	45	33		
Belgium.....	148	13							
Germany.....	118	20							
United States.....	121	142	27	160	330	233	188		
Other countries.....	31	22	12	28	174	24	34		
Total.....	557	319	78	254	558	302	255	358	43
Fire bricks.....	406	139	43	208	496	220	167	250	43
Pottery.....	151	180	35	46	62	82	88	108	

¹ Details not available.

Earthenware manufacture is one of the industries of Japan which has received a great stimulus during the war. With two of the leading pottery manufacturing countries of the world (Germany and Belgium) eliminated from the Japanese home market, as well as most of the other markets of the world, an unprecedented opportunity was offered for expansion. Appreciating the possibilities of the situation, the Japanese adopted modern methods of large scale production with the latest machinery adding to or supplanting the output of home workers, and became an important factor in the world trade of pottery products. Since the war began considerable attention has been given to the production of white glazed porcelain for use as electrical insulators, and these are being turned out in large quantities. Export values reached the record mark of 31,452,000 yen in 1920, an increase of 368 per cent over the 1913 export figure of 6,724,000 yen. With the exception of a slight recession in 1914, the advance in exports has been continuous since 1913 and through most of 1920, but some decline has occurred in the first six months of 1921.

For the maintenance and expansion of this industry in the future, Japan is well protected by large deposits of kaolin in Fusan, Korea. It is also reported that Amogusa stone, of which Japan has a bountiful supply, is a satisfactory substitute for kaolin in the making of the cheaper grades of pottery. The Japanese goods are chiefly of the poorer quality, low grade variety of white glazed cups and saucers. The distribution of Japanese pottery exports by countries is indicated in the following table:

Exports of pottery, 1913-1921.

[Values in thousands of yen.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
China.....	388	459	477	1,260	1,980	2,106	2,854	2,074	554
Kwantung.....	203	167	165	354	722	1,114	1,282	1,044	392
Hongkong.....	405	351	298	499	712	904	679	380	289
British India.....	321	240	517	1,168	1,220	1,816	2,262	1,978	314
Straits Settlements.....	211	182	532	706	955	802	1,128	1,116	186
Dutch East Indies.....	126	122	256	524	1,121	2,518	1,797	3,298	1,777
Philippine Islands.....	.....	.....	108	221	487	788	546	826	154
Great Britain.....	429	303	659	485	64	121	808	1,462	298
United States.....	3,140	3,175	2,919	4,191	4,942	4,459	6,056	9,450	4,316
Canada.....	277	122	246	464	561	508	780	918	622
Cape Colony and Natal.....	27	25	18	130	172	276	181	.....	.....
Other African countries.....	.....	.....	.....	.....	.....	.....	.....	1,422	49
Australia.....	155	160	451	1,493	951	2,823	1,486	2,695	349
All other countries ¹	1,042	683	337	609	587	1,723	2,771	4,489	712
Total.....	6,724	5,989	6,984	12,104	14,474	19,958	22,630	31,452	10,012

¹ Includes exports to South America, which have been increasing.

PER CENT DISTRIBUTION.

China.....	5.77	7.66	6.84	10.40	13.68	10.55	12.61	6.59	5.53
Kwantung.....	3.03	2.80	2.36	2.93	4.98	5.58	5.66	3.32	3.92
Hongkong.....	6.02	5.86	4.27	4.12	4.92	4.53	3.00	1.21	2.89
British India.....	4.77	4.01	7.39	9.65	8.42	9.10	10.00	6.29	3.14
Straits Settlements.....	3.14	3.04	7.60	5.83	6.59	4.02	4.98	3.55	1.86
Dutch East Indies.....	1.87	2.04	3.67	4.33	7.75	12.62	7.94	10.49	17.74
Philippine Islands.....	.....	.....	1.53	1.83	3.36	3.95	2.41	2.63	1.54
Great Britain.....	6.38	5.06	9.44	4.01	44	.01	3.57	4.65	2.98
United States.....	46.70	53.01	41.81	34.63	34.13	22.34	26.76	30.04	43.10
Canada.....	4.12	2.04	3.53	3.84	3.87	2.55	3.45	2.92	6.21
Cape Colony and Natal.....	.40	.42	.27	1.07	1.19	1.38	.80	.....	.....
Other African countries.....	.....	.....	.....	.....	.....	.....	.....	4.52	49
Australia.....	2.30	2.67	6.45	12.34	6.59	14.14	6.57	9.52	3.49
All other countries.....	15.50	11.39	4.84	5.02	4.08	8.63	12.25	14.27	7.11
Percentage pottery exports are of total export trade...	1.05	1.00	.99	1.07	.90	1.01	1.07	1.61	1.74

It can be seen from the preceding tables that during the last eight years the United States has been the leading market for Japanese pottery, this country usually obtaining from one-third to one-half of the total exports. The exports, measured by value, to the United States, increasing from 3,140,000 yen in 1918 to 4,942,000 yen in 1917, to 6,056,000 yen in 1919 and 9,450,000 in 1920, afford evidence of the development of this trade.

Other than the United States no country had purchased in any year more than a million yen's worth of pottery until 1916, when the exports to Australia, China, and British India each exceeded this amount. In the following year the exports to the Dutch East Indies passed the million mark, and that country has since been one of the chief factors in the pottery trade of Japan, ranking next to the United States as the largest market in 1920 and the first half of 1921. China consistently affords a relatively large market for Japanese pottery and in recent times Australia has also been important. Considerable quantities of pottery are likewise regularly shipped to British India, Kwantung, and the Straits Settlements. Outside of the United States and Asia, and except for 1920, when Great Britain and the African countries each purchased nearly a million and a half yen's worth, there have been no other countries to obtain large shipments of pottery from Japan. Aside from the relatively large purchases by the United States and the Dutch East Indies, which together aggregated over 60 per cent of the total exports of Japanese pottery, there has been a decisive drop in shipments to all countries in the first six months of 1921.

Glass and manufactures thereof.—The imports of this group, as measured in value, decreased considerably during the war, and it was not until 1919 that the trade again equaled or exceeded the pre-war figures. Since 1919 the value of the imports has increased, and available data indicate that there has been no decline during the first half of 1921.

The chief article of import is sheet and plate glass, which in 1913 constituted 85 per cent of the total glass imports, and in 1920 about 67 per cent. The manufacture of plate glass in Japan is a war-stimulated industry, there having been only one producer in that country in 1913. Since the outbreak of hostilities not only plate glass but nearly all other types of glass manufactures have undergone considerable development. Belgium had been supplying about 80 per cent of the total Japanese imports of glassware, and nearly all of the sheet and plate glass, but by 1915 England had taken the lead only to be surpassed by the United States thereafter. From comparatively no shipments of glassware to the Japanese before the war the United States exported over a million yen's worth in 1916, and by 1919 had increased this trade to 2,310,000 yen, or 84 per cent of the total imports of glassware into Japan. After 1919 details of this trade are not available from Japanese sources, but the United States official figures indicate that these exports to Japan in 1920 exceeded those of 1919.

The Belgian trade is reviving, but the United States is still the main source of supply. The following table shows the imports of glass and manufactures thereof by countries of origin:

Imports of glass and manufactures thereof, 1913-1921.

[Values in thousands of yen.]

	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
Sheet and plate glass.....	2,921	2,137	709	1,653	1,802	1,429	2,760	3,760	2,336
All other glass and manufactures of.....	486	420	465	637	731	1,024	1,344	1,579	1,265
Total.....	3,407	2,557	1,174	2,290	2,533	2,453	4,104	5,639	3,601
Sheet and plate glass imported from:									
Belgium.....	2,424	1,747	44	12	13		12	(1)	(1)
Great Britain.....	325	299	445	435	753	261	429	(1)	(1)
United States.....	1	4	218	1,190	1,034	1,163	2,310	(1)	(1)
Other countries.....	171	87	2	16	2	5	9	(1)	(1)
Total.....	2,921	2,137	709	1,653	1,802	1,429	2,760	3,760	2,336

¹ Details not available.

Before the war the production of glassware in Japan was chiefly a home industry, being confined largely to the manufacture of household necessities. Exports were mainly of bottles and looking-glasses. The value of bottles exported from Japan has exceeded all other types of glassware exported since 1913, being about 35 per cent of the total. After the beginning of hostilities, the exports of window glass advanced from virtually nothing in 1913 to 25 per cent of the total glass exports in 1919, but fell back to 14 per cent in 1920 and to 9 per cent for the first six months of 1921. The home demand for window glass has increased enormously, notwithstanding its relatively high price, due to the building of various new factories, offices, and business houses in the cities and larger towns of Japan, and because of the more general use by the people. Several large plate glass factories were built during the war period and, with the aid of the technical skill of foreign experts, the manufacturers were able to compete with the imported article and have a surplus for export. The glass manufacturing industry has suffered considerably, however, during the twelve months ending June 30, 1921, as the competition of the reviving Belgian trade in both the foreign and home markets and the very serious drop in prices has had a depressing effect on the industry.

The following table gives for certain years the Japanese exports of glassware by main classes of goods:

Exports of glass and manufactures thereof, 1913 and 1917-1921.

[000 omitted.]

Kind.	1913			1917			1918		
	Quantity.	Value.	Per cent of total value.	Quantity.	Value.	Per cent of total value.	Quantity.	Value.	Per cent of total value.
		Yen.			Yen.			Yen.	
Window glass.....sq. ft.				21,923	3,117	21.55	23,330	3,512	21.8
Thermos bottles.....doz.				52	486	3.36	79	812	5.1
Other bottles and flasks.....do.	5,577	1,180	34.65	14,981	4,399	30.42	9,100	3,843	23.9
Cups.....do.	1,115	306	9.22	3,033	1,697	11.73	1,550	1,334	8.3
Tableware.....do.					387	2.68		396	2.5
Beads and balls.....do.		480	14.77		1,635	11.31		1,323	8.2
Looking glasses.....No.	10,068	707	21.30	13,396	1,480	10.23	15,211	2,019	12.6
Spectacles.....do.	3,275	122	3.68	3,276	192	1.33	2,702	228	1.4
Other glass, and manufactures of.....		544	16.38		1,067	7.39		2,612	16.2
Total.....		3,319			14,460			16,079	100.0

Kind.	1919			1920			1921 (January-June).		
	Quantity.	Value.	Per cent of total value.	Quantity.	Value.	Per cent of total value.	Quantity.	Value.	Per cent of total value.
		Yen.			Yen.			Yen.	
Window glass.....sq. ft.	28,714	4,944	25.1	17,325	3,161	13.6	2,411	409	9.2
Thermos bottles.....doz.	72	812	4.1	109	1,224	5.3	27	299	6.6
Other bottles and flasks.....do.	9,672	4,893	24.9	11,455	7,094	30.5	3,298	1,194	26.7
Cups.....do.	1,841	1,950	9.9	2,474	3,619	15.6	767	821	18.0
Tableware.....do.		274	1.4						
Beads and balls.....do.		2,440	12.4		3,566	15.4		663	15.0
Looking glasses.....No.	11,529	2,148	10.9	8,197	2,132	9.2	3,146	628	14.0
Spectacles.....do.	1,747	213	1.1	1,245	177	.8			
Other glass, and manufactures of.....		2,007	10.2		2,266	9.6		451	10.5
Total.....		19,681	100.0		23,239	100.0		4,465	100.0

Although the chief markets for Japanese glassware continue to be in the East, the general tendency in this export trade during the last few years has been one of expansion beyond Japan's former exclusively Asiatic customers. In 1913 Japan's shipments of glassware to Great Britain, the United States, and other non-Asiatic countries were insignificant, but by 1918 this non-Oriental trade had developed to nearly one-fifth, and in the two following years to about one-fourth, of the total glassware exports. The first six months of 1921, however, are marked by a decisive falling off of this non-Asiatic trade to about one-tenth of the total.

British India and China have furnished the two largest markets for Japanese glassware, the British possession generally leading, and until 1918 together they purchased about half of the total glassware exports. In 1918 and the two years following, the combined exports to these two countries fell considerably below the previous ratio, but the former predominance was regained for the first six months of 1921. Australia, Kwantung, Hongkong, the Dutch East Indies and the Philippines have been ready markets during the last few years for these Japanese wares of the less expensive grades. The United

States since 1918 has also purchased considerable quantities, ranking third in value of Japan's glassware exports in 1919 and fourth in 1920. Australia has been the third most important market since 1915, except for the one year 1919. These figures are brought out in the following table:

Exports of glass and manufactures thereof, 1913-1921.

[Values in thousands of yen.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (Jan.-June).
China.....	891	826	1,329	1,913	2,985	3,256	4,130	3,092	919
Kwantung.....	218	135	299	352	783	1,096	1,694	1,327	476
Hongkong.....	284	263	275	442	875	693	1,070	1,020	265
British India.....	966	828	1,947	2,991	4,357	2,760	4,388	4,999	1,294
Straits Settlements.....	357	240	388	624	555	404	522	702	96
Dutch East Indies.....	240	220	293	535	803	1,373	901	1,369	602
Philippine Islands.....	121	160	257	410	786	1,082	558	1,374	58
Great Britain.....	10	9	75	611	309	386	1,329	1,272	102
United States.....	6	9	25	153	804	1,342	1,833	2,594	196
Cape Colony and Natal.....		1	36	293	238				
Other African countries.....						636	594	982	50
Australia.....	104	161	803	1,520	1,163	1,895	1,163	2,904	232
All other countries.....	92	74	146	553	802	1,157	1,499	1,614	174
Total.....	3,319	2,826	5,873	10,397	14,460	16,080	19,681	23,239	4,464

The peak of the Japanese export trade in glass and manufactures thereof and the rapid decline since can be shown by presenting the total exports for the last five semi-yearly periods as follows:

January to June—	Yen.	July to December—	Yen.
1919.....	8,266,000	1919.....	11,417,000
1920.....	13,611,000	1920.....	9,628,000
1921.....	4,464,000		

ORES AND METALS.

(Group XIV of imports and Group XIII of exports.)

The foreign trade of Japan in ores and metals increased enormously during the war, the value of imports for the year 1918 being nearly five times, and the value of exports about three and one-half times, those of 1913. Imports of ores and metals advanced from 10 per cent of the value of total Japanese imports in 1913 to 21 per cent in 1918. During the war, therefore, ores and metals became, next to textiles, the leading group of commodities in the import trade of Japan. The demand in Japan for metal products, especially iron and steel, for shipbuilding, for the transportation system, and for the extension of home industries, assumed such proportions that the ore output capacity of the domestic mines fell far short of meeting the industrial requirements. After the armistice there was no decided change in the import trade of ores and metals until the latter half of 1920, when, with the falling prices, the value of the imports for the year ending June 30, 1921, was 33 per cent less than for the preceding twelve months. Exports, on the contrary, have been declining steadily since the peak of 1917.

The foreign trade in this group of commodities, taken as a whole, for each calendar year from 1913 to 1920, the first six months of 1921, and the three years ending June 30, 1919, 1920, and 1921, is given in the following table:

Trade in ores and metals, 1913-1921.

[Values in thousands of yen.]

Year.	Imports.		Exports.		Year.	Imports.		Exports.	
	Value.	Per cent of total import trade.	Value	Per cent of total export trade.		Value.	Per cent of total import trade.	Value.	Per cent of total export trade.
Calendar year—					Year ending				
1913.....	72,663	9.96	31,455	4.98	June 30—				
1914.....	53,799	9.03	31,649	5.35	1919.....	311,283	18.58	90,045	4.76
1915.....	58,670	11.02	64,719	9.14	1920.....	391,750	15.85	48,675	1.38
1916.....	150,828	19.94	120,432	10.68	1921.....	260,120	17.14	23,226	1.10
1917.....	264,412	25.53	171,874	10.72					
1918.....	358,498	21.49	109,459	5.58					
1919.....	322,733	14.85	59,080	2.81					
1920.....	336,511	14.40	37,655	1.93					
1921 (Jan.-June).....	118,709	14.86	10,555	1.84					

Increase in—	Per cent.	Increase in—	Per cent.
Imports, 1919 compared with 1913.....	344	Imports, 1920 compared with 1913.....	363
Exports, 1919 compared with 1913.....	88	Exports, 1920 compared with 1913.....	20

The value of imports of ores and metals increased from 72,633,000 yen in 1913 to 358,498,000 yen in 1918, and to 391,750,000 yen for the year ending June 30, 1920. For the following twelve months the imports fell to 260,120,000 yen, which was 17 per cent of the total imports of the Empire. Exports of ores and metals advanced in value from 31,455,000 yen, or 5 per cent of the total exports in 1913, to 171,874,000 yen, or nearly 11 per cent of the total in 1917, and have since declined to 23,226,000, or 1 per cent of the total for the 12 months ending June 30, 1921.

The statistics for recent years leads to the conclusion that the relative importance of ores and metals in the import trade of Japan will continue to be greater than before the war. The contrary will probably be true of the exports of ores and metals, unless the domestic industry is materially aided by the Government.

IMPORTS.

Japan's import trade in ores and metals included in this group is dominated by iron and steel, which constituted 80 per cent of the total in 1913, 87 per cent in 1918, and 83 per cent in 1920, as shown in the following table:

Imports of ores and metals, 1913-1921.

[Values in thousands of yen.]

Year.	Total.	Iron and steel.		All other.	
		Value.	Per cent of total.	Value.	Per cent of total.
1913.....	72,663	58,349	80	14,314	20
1914.....	53,799	41,663	77	12,136	23
1915.....	58,670	36,232	64	22,438	36
1916.....	150,828	91,410	61	59,418	39
1917.....	264,412	209,700	79	54,712	21
1918.....	358,498	310,391	87	48,107	13
1919.....	322,733	251,038	78	71,695	22
1920.....	336,511	279,222	83	57,289	17
1921 (January-June).....	118,709	103,606	87	15,103	13

Ores.—The value of Japanese ore imports steadily increased from 1,855,000 yen in 1913 to 20,903,000 yen in 1919, and then decreased to 15,960,000 yen in 1920, and 5,465,000 yen for the first six months of 1921. Details of this trade are given in the following table:

Imports of ores, 1913–1921.

[Values in thousands of yen.]

Year.	Total.	Iron.	Lead.	Zinc.	Anti- mony.	All other.
1913.....	1,855	1,585	.....	.....	.....	270
1914.....	2,303	1,729	.....	.....	.....	574
1915.....	3,877	1,812	.....	.....	.....	2,065
1916.....	16,162	1,671	.....	.....	.....	14,491
1917.....	17,655	2,460	2,515	7,823	530	4,327
1918.....	20,366	9,674	383	4,882	.....	5,427
1919.....	20,903	16,139	16	2,253	3	2,492
1920.....	15,960	14,897	.....	104	16	943
1921 (January–June).....	5,465	4,885	.....	.....	.....	580

Imports of ores before the war were confined largely to iron ore, but during the war there were considerable Japanese foreign purchases of other metals, particularly zinc and lead. The imports of iron ore, however, increased greatly, beginning with 1918, and by 1920 imports of ores other than iron had again become negligible.

The mines of Japan have ordinarily produced sufficient copper, sulphur, graphite, antimony, and tungsten for home needs and have also met most of her lead, tin, and zinc requirements, but the production of iron ore in Japan proper, it has been estimated, can supply only about one-fourth of the normal domestic needs. The dependence on foreign sources for iron ore, however, can be narrowed down to the mines of China. This statement is borne out by the following table of Japanese yearly imports of iron ore by countries from 1915 to 1919, inclusive:

Imports of ores, 1915–1919.

[Values in thousands of yen.]

Imported from—	1915	1916	1917	1918	¹ 1919
China.....	1,786	1,641	2,382	9,601	15,331
Kwantung.....	.....	.....	.....	2	205
Philippine Islands.....	.....	.....	.....	.....	602
Great Britain.....	26	30	.....	.....	.....
Australia.....	.....	.....	73	69	.....
Other countries.....	.....	.....	5	2	.....
Total.....	1,812	1,671	2,460	9,674	16,139

¹ Imports by countries of origin not available after 1919.

In addition to the iron ore imports, which more than doubled in quantity from 1913 to 1920, Korean mines under Japanese supervision have been recently furnishing the smelters of Japan with relatively large quantities of the ore. Japanese statistics credit Korea with shipping to Japan proper 253,000 tons of iron ore in 1918 and over 375,000 tons in 1919, while the Japanese imports of iron ore

from China were nearly 400,000 tons in 1918 and 600,000 tons in 1919. Another factor in the iron situation is the discovery in Japan since the armistice of a process for the use of iron oxide sand, which is plentiful in the country. To date, however, this process has proved too expensive to be used commercially, but could be resorted to if Japan were temporarily cut off from foreign sources.

As has been previously stated, no ores other than iron ore have been factors in this Japanese import trade except zinc and lead ore during the war and the year after the armistice. The following table gives the value of Japanese imports of zinc and lead ores by countries of origin for the years 1917, 1918, and 1919:

Imports of lead and zinc ores, 1917-1919.

[Values in thousands of yen.]

LEAD ORE.

Imported from—	1917	1918	1919	Imported from—	1917	1918	1919
China.....	1,422	46	14	United States.....		93	
Kwantung.....	150		1	Australia.....	37	18	
French Indo-China.....		118		Other countries.....	30	16	1
Asiatic Russia.....	673	92		Total.....	2,515	383	16
Russia.....	203						

ZINC ORE.

China.....	154	13	13	Australia.....	5,319	3,288	1,599
Kwantung.....		2		Other countries.....	2	5	3
French Indo-China.....	1,921	1,442	638	Total.....	7,823	4,882	2,253
Asiatic Russia.....	329	132					
Philippine Islands.....	98						

About half of the lead ore imports in these three years came from China, and of the total zinc ore imports Australia shipped 68 per cent and French Indo-China 27 per cent.

Iron and steel.—The value of imports of iron and steel, some machinery and a few other fabricated articles excepted, increased from 8 per cent of the total import trade of Japan in 1913 to 20 per cent in 1917, and then decreased in importance to about 12 per cent in 1919 and 1920. In 1913 Japan imported 58 million yen of iron and steel goods, and in 1918 over 310 million yen, an increase of 430 per cent, but fell back to about 229 million yen for the twelve months ending June 30, 1921. The 1913 figure for iron and steel imports is far in excess of those of a few years preceding. No other country in recent years, except the United States and Germany, has undergone such a striking development in demands for iron and steel as Japan. The domestic industry, however, has sustained a serious check from the economic crisis of 1920.

In the following tables are presented the total yearly imports of iron and steel from 1913 to June, 1921, by value and weight, grouped in accord with the official Japanese statistics:

THE FOREIGN TRADE OF JAPAN.

Imports of iron and steel, 1913-1921.

VALUES.

[In thousands of yen.]

Year.	Total iron and steel.		Iron ore.		Raw or partly fabricated.		Rolled, cast, forged, or drawn, etc.		Pipes and tubes coated or not coated with base metals.	
	Value.	Per cent of total import trade.	Value.	Per cent of total iron and steel.	Value.	Per cent of total iron and steel.	Value.	Per cent of total iron and steel.	Value.	Per cent of total iron and steel.
1913.....	58,350	8	1,585	2.71	12,537	21.49	37,293	63.92	6,935	11.88
1914.....	41,662	7	1,729	4.15	8,157	19.58	27,647	66.36	4,129	9.91
1915.....	36,231	7	1,812	5.00	8,151	22.50	24,888	68.70	1,380	3.80
1916.....	91,409	12	1,672	1.83	18,825	20.60	67,478	73.82	3,434	3.75
1917.....	209,700	20	2,459	1.17	31,151	14.85	167,284	79.79	8,806	4.19
1918.....	310,391	19	9,674	3.12	80,854	26.01	206,087	66.40	13,776	4.44
1919.....	251,038	12	16,139	6.43	63,669	25.36	158,056	62.97	13,174	5.25
1920.....	279,219	12	14,896	5.33	46,818	16.77	202,412	72.50	15,093	5.49
1921 (January-June).....	103,606	13	4,885	4.72	10,665	10.30	80,852	78.02	7,204	6.96
1921 (Year ending June 30).....	229,432	15	12,460	5.43	28,647	12.49	173,477	75.61	14,848	6.47

QUANTITIES.

[In thousands of kin.]

Year.	Total iron and steel.	Iron ore.	Raw or partly fabricated.	Rolled, cast, forged, or drawn, etc.	Pipes and tubes coated or not coated with base metals.
1913.....	1,648,546	467,078	472,963	632,570	75,935
1914.....	1,388,306	498,736	303,542	537,062	48,966
1915.....	1,177,346	515,290	298,477	348,466	15,113
1916.....	1,624,772	466,901	470,321	659,458	28,092
1917.....	2,021,827	495,420	511,480	969,650	45,277
1918.....	2,125,687	601,551	593,346	873,227	57,563
1919.....	2,571,999	1,035,143	572,819	911,360	52,677
1920.....	3,224,346	1,103,947	656,809	1,392,227	71,363
1921 (January-June).....	1,146,030	433,376	173,490	502,244	36,930
1921 (year ending June 30).....	2,670,695	1,028,923	455,540	1,112,158	74,074

From the above it will be seen that the value of iron ore imports in 1913 was only 2.7 per cent of the total value of imports of iron and steel, other than machinery and a few fabricated articles, but for the twelve months ending June 30, 1921, it had advanced to 5.4 per cent. The opposite tendency is apparent in regard to raw or partly fabricated articles (mainly pig iron), as the ratio to total value fell from 21.5 per cent in 1913 to 12.5 per cent in 1921. The third group in the table, namely, bar, rod, plate, or sheet iron, wire, bands, and hoops, which have been rolled, cast, forged, or drawn, is the most important, and constituted by value 64 per cent of the total imports of iron and steel, other than machinery and a few fabricated articles, in 1913, and 75.6 per cent for the year ending June 30, 1921. Pipes

and tubes constitute the fourth group, which receded in relative importance from 11.9 per cent of the total value of iron and steel imports in 1913 to 6.5 per cent for the year ending June 30, 1921.

The first group, iron ore, has been previously discussed, and the second group, which comprises raw and partly fabricated materials, will next be considered. Of this group, imports of pig iron constitute about three-fourths of the total imports by both value and weight, and is the only article of importance included under this heading. The pig iron imports suffered a serious decline after the war started, falling from about 268,000 tons in 1913 to 169,000 tons in 1915, and did not recover the pre-war status until 1919, when 286,000 tons were received from foreign countries. In the calendar year 1920 the peak in the volume of pig iron imports was reached, namely, 352,000 tons, and then during the twelve months ending June 30, 1921, as a result of the crisis, the trade fell to 250,000 tons, which is below the pre-war figure of 1913. The rapid fluctuations in Japanese foreign purchases of pig iron since the last year of the war can be shown by the following official statistics of imports by semi-yearly periods, as follows:

January-June:	Metric tons.	July-December:	Metric tons.
1918.....	85,730	1918.....	141,644
1919.....	84,594	1919.....	201,432
1920.....	200,700	1920.....	151,470
1921.....	98,145		

The Japanese imports of raw and partly fabricated iron and steel articles from 1913 to June 30, 1921, are given in the following table:

Imports of iron and steel, raw or partly fabricated, by articles, 1913-1921.

VALUES.

[In thousands of yen.]

Article.	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January- June).	1921 (year ended June 30).
Pig iron.....	10,390	6,595	6,549	13,794	23,818	59,092	52,145	40,559	9,652	25,066
Waste or old.....	151	110	200	2,104	5,913	16,746	5,723	4,822	596	2,491
Spiegeleisen.....	109	45	45	89	190	1				
Ferromanganese.....	515	131	423	583	195	408	960	119	65	65
Ferrosilicon and sili- conspiegeleisen.....	170	191	248	459	152	156	210	128		
Nonmalleable iron alloys.....	231	87	322	204	335	100	373	199	134	196
Ingot, blooms, bil- lets, and slabs.....	816	891	328	1,522	515	4,348	4,253	894	62	576
Keg steel and bam- boo steel.....	147	105	36	67	1	2	5	97		97
Other.....	8	2		3	2	1			156	156
Total.....	12,537	8,157	8,151	18,825	31,151	80,854	63,669	46,818	10,665	28,647

Imports of iron and steel, raw or partly fabricated, by articles, 1913-1921—Continued.

QUANTITIES.

[Quantities in thousands of kin.]

Articles.	1913	1914	1915	1916	1917	1918	1919	1920	1921 (Jan- uary- June).	1921 (year ending June 30).
Pig iron.....	441,776	281,823	278,072	386,747	387,087	375,167	471,943	581,081	161,940	411,886
Waste or old.....	4,550	3,429	6,353	61,774	116,308	200,693	75,948	66,669	9,683	38,308
Spiegeleisen.....	3,024	1,060	965	1,567	2,044	15				
Ferromanganese.....	6,746	1,807	4,424	3,918	1,005	1,273	4,199	849	500	500
Ferrosilicon and sil- iconspiegeleisen.....	2,849	1,828	2,563	3,286	775	626	492	745		
Nonmalleable iron alloys.....	1,122	341	1,785	575	891	121	565	196	429	496
Ingots, blooms, bil- lets, and slabs.....	10,898	11,928	3,884	11,774	3,322	15,449	19,670	6,911	300	3,364
Keg steel and bam- boo steel.....	1,901	1,292	431	628	3	1	2	358		358
Other.....	97	4		52	45	1			628	628
Total.....	472,963	303,542	298,477	470,321	511,490	593,346	572,819	656,809	173,480	455,541

Imports of iron and steel, raw or partly fabricated, by countries of origin,¹ 1913-1921.

[Values in thousands of yen.]

Imported from—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (Jan- June).
China.....	2,054	1,940	2,890	5,031	9,347	41,816	16,288	14,553	1,131
Kwantung.....			64	2,422	4,573	8,380	11,722	4,621	1,659
British India.....	2,931	1,047	1,233	3,613	5,318	1,036	5,570	5,410	1,699
Great Britain.....	4,786	2,782	2,551	3,647	1,388	4,247	10,850	8,483	3,463
Sweden.....	1,256	1,274	703	436	977	1,267	2,792	2,784	2,018
United States.....	27	229	155	1,512	3,574	7,003	9,274	4,450	99
Other countries.....	1,332	774	354	60	61	360	1,450	1,695	
Total.....	12,386	8,046	7,950	16,721	25,238	64,109	57,946	41,996	10,069
Total quantity, in thousands of kin.....	468,413	300,114	292,124	408,546	395,170	392,652	496,871	590,140	163,797
Average value, yen per kin..	0.03	0.03	0.03	0.04	0.06	0.16	0.12	0.07	0.06

PER CENT DISTRIBUTION.¹

China.....	17	24	36	30	37	65	28	35	12
Kwantung.....			1	14	18	13	20	11	16
British India.....	24	13	16	22	21	2	10	13	17
Great Britain.....	39	35	32	22	6	7	19	20	34
Sweden.....	10	16	9	3	4	2	6	7	20
United States.....		3	2	9	14	10	16	10	1
Other countries.....	11	10	4			1	2	4	
Percentage imports of iron and steel, raw or partly fabricated, are of total im- port trade.....	2	1	1	2	2	4	3	2	1

¹ Does not include waste or old.

The average price of imported pig iron advanced from about 39 yen per ton in 1913 to 259 yen per ton in 1918, and this enhanced unit price was reflected in the value of imports which increased from 10,390,000 yen in 1913 to 59,092,000 yen in 1918; and then, with a

drop in import prices to an average of approximately 100 yen per ton for the 12 months ending June 30, 1921, the value of pig iron imports for this period declined to 25,066,000 yen.

Before the war and through 1914 Great Britain was the leading exporter to Japan of raw and partly fabricated iron products. China was the chief source of supply thereafter, furnishing nearly 42 million yen worth or 65 per cent of the total Japanese imports in 1918. For the first six months of 1921, however, China fell to fifth place in this trade, and Great Britain again took the lead followed by Sweden. British India, and Kwantung since 1916, have also been factors in the Japanese import trade of these articles. The United States, too, after 1916, shipped considerable quantities of raw and partly fabricated iron materials, reaching 14 per cent in 1917 and 16 per cent in 1919 of the total trade, but for the first six months of 1921, returned to the pre-war status of practically nothing.

The imports of the third group of iron materials comprising bar, rod, plate, or sheet iron, wire bands, and hoops, which are rolled, cast, forged, or drawn, have averaged since 1913 about two-thirds of the total imports of iron and steel. From 1913, when imports of this group were valued at 37.3 million yen, the trade developed to 206 million yen in 1918 and 202.4 million yen in 1920, an increase of nearly 450 per cent over the pre-war year figure, and the volume increased from about 383,000 tons in 1913 to, roughly, 529,000 tons in 1919 and 843,000 tons in 1920.

The most important article in this group is plate or sheet iron (not coated with metals) used principally in shipbuilding, the Japanese imports of which in 1913 constituting by value 14 per cent, in 1917 over 40 per cent, and in 1920 about 30 per cent of the total value of all iron and steel imported into Japan. For the three selected years, the metric tonnage of plate or sheet iron imported was 95,000, 301,000, and 382,000, respectively, which was valued at 8.6 million yen in 1913, 91.4 million yen in 1917, and 88.3 million yen in 1920. From these figures the average yearly import price per metric ton may be roughly calculated as follows: 90 yen in 1913, 303 yen in 1917, and 238 yen per ton in 1920. Considering the above imports and the development of the domestic manufacture of iron plates and sheets during recent years, the magnitude of Japanese shipbuilding and the vital part which it has recently played in the economic life of Japan can be appreciated. There has been a decline in quantity and value of this class of imports, resulting from the crisis of 1920. This was, however, somewhat less serious than with many other articles, as the Japanese statistics for the first six months of 1921 show the value of imports of iron plates and sheets (not coated with metals) to be about one-third of the total imports of all iron and steel for this period.

The quantity and value of imports of iron sheets and plates with other articles in this group of iron and steel products, by years, are given in the following tables:

Imports of iron and steel, rolled, cast, forged, or drawn (bar, rod, plate, or sheet iron, wire, bands, and hoops), 1913-1921.

VALUES.

[In thousands of yen.]

Articles.	1913	1914	1915	1916	1917	1918	1919	1920	1921 (Jan.- June.)	Year ending June 30, 1921.
Bars, rods, T angles, etc.....	13,840	9,866	5,602	22,508	46,369	81,222	47,721	60,535	22,206	53,455
Wire rods.....	568	412	1,081	4,076	6,931	6,795	9,991	9,010	1,834	6,361
Plate or sheet iron:										
Not coated with metals.....	8,621	6,942	7,733	22,619	91,396	77,932	67,855	88,267	35,254	71,200
Galvanized—										
Corrugated..	2,221	1,131	432	596	825	372	425	3,072	1,796	3,396
Other.....	3,160	1,829	792	562	582	760	1,452	7,571	2,703	6,900
Tinned iron and steel sheets.....	4,603	4,010	4,792	10,084	11,726	20,851	17,516	20,391	9,661	16,044
Iron wire, galvan- ized.....	2,447	2,128	3,175	4,324	5,859	7,560	7,797	8,490	4,547	9,549
Iron bands and hoops.....	295	301	159	594	1,243	1,903	2,094	2,496	1,156	2,556
Other.....	1,538	1,028	1,122	2,115	2,353	3,692	3,205	2,582	1,693	3,736
Total value...	37,293	27,647	24,888	67,478	167,284	206,087	158,056	202,412	80,852	173,477

PER CENT DISTRIBUTION BY COUNTRIES.

Imported from—										
China.....			0.26	1.19	1.78	2.36	.24	1.12	.22	.....
Great Britain...	47.89	44.46	45.39	30.51	3.84	1.68	12.77	20.48	21.99	.....
Germany.....	31.02	33.31	1.67	.66						.....
Sweden.....	2.20	1.89	2.66	4.99	1.11	.55	1.18	.65	.66	.....
United States...	7.54	9.39	48.17	61.70	91.82	94.83	85.49	76.58	74.58	.....
Other countries..	11.35	10.95	1.85	.95	1.45	.58	.32	1.17	2.55	.....
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	.....
Percentage imports of iron and steel, rolled, cast, etc., are of total im- port trade	4.99	4.53	4.59	8.80	16.09	12.27	7.20	8.60	10.00	.....

QUANTITIES.

[In thousands of kin.]

Bars, rods, T angles, etc.....	308,678	257,915	97,704	239,430	329,398	442,985	318,210	495,582	171,564	421,160
Wire rods.....	7,659	5,761	16,674	31,500	42,290	54,978	62,827	75,055	10,778	49,459
Plate or sheet iron:										
Not coated with metals.....	156,753	146,961	129,645	267,335	496,809	266,897	399,316	630,886	225,060	464,332
Galvanized—										
Corrugated..	24,312	13,525	4,362	4,299	4,344	1,418	1,793	12,026	7,263	13,775
Other.....	32,849	19,531	7,851	3,836	2,855	2,384	5,922	30,160	10,084	26,096
Tinned iron and steel sheets.....	44,144	43,531	44,511	65,508	44,747	48,906	62,227	82,331	39,072	64,292
Iron wire, galvan- ized.....	37,672	34,202	36,645	30,766	30,995	35,289	41,608	43,855	24,265	49,039
Iron bands and hoops.....	5,088	5,812	2,167	5,139	6,798	7,583	9,035	13,355	5,333	12,204
Other.....	15,415	9,824	8,907	11,645	11,414	12,787	10,422	8,977	5,825	11,828
Total quantity..	632,570	537,062	348,466	659,458	969,650	873,227	911,360	1,392,227	502,244	1,112,158

Imports of iron and steel, rolled, cast, forged, or drawn (bar, rod, plate, or sheet iron, wire, bands, and hoops), 1913-1921—Continued.

PERCENTAGE INCREASE OR DECREASE (—) IN VALUE, 1913-1917, 1913-1918, 1913-1919, 1913-1920, and 1919-20.

	1913-1917	1913-1918	1913-1919	1913-1920	1919-20
Bars, rods, T angles, etc.....	235	508	245	337	27
Wire rods.....	1,120	1,448	1,659	1,486	-10
Plate or sheet iron:					
Not coated with metals.....	960	804	687	924	30
Galvanized—					
Corrugated.....	-62	-83	-81	38	622
Other.....	-81	-76	-54	140	421
Tinned iron and steel sheets.....	154	353	280	343	16
Iron wire, galvanized.....	139	209	219	247	9
Iron bands and hoops.....	321	545	610	742	19
Other.....	53	140	108	68	-19
Total.....	349	453	324	443	28

Before the war, most of these iron and steel materials were imported from Great Britain and Germany, the former shipping 48 per cent in 1913 and 44 per cent in 1914, and the latter 31 per cent in 1913 and 33 per cent in 1914, of the total value of the import trade of this class. By 1915, the United States had taken the lead with 48 per cent against Great Britain's 45 per cent. Thereafter, shipments from the United States increased enormously, reaching in 1918 a value of 194 million yen, which was 95 per cent of the total imports of this group for that year. Since the armistice the relative importance of the United States in this import trade has declined to 85.5 per cent in 1919, to 76.6 per cent in 1920, and to 74.6 per cent for the first six months of 1921. The opposite tendency has been the case with Great Britain, whose shipments grew from 1.7 per cent of the total trade of this group in 1918 to 12.8 per cent in 1919, to 20.5 per cent in 1920, and 22 per cent for the first six months of 1921. The official Japanese import figures for June, 1921, do not reveal any resumption of trade in these articles with Germany.

The fourth group of iron and steel products comprises iron pipes and tubes (elbows and joints and "other," coated and not coated with base metals). The value of imports of this group was 12 per cent of the value of all iron and steel imports, machinery excepted, in 1913, but only 3.8 per cent in 1915, 4 per cent in 1917, and 5.4 per cent in 1920. Imports fell in 1915 to about one-fifth in both quantity and value as compared with those of 1913, which is evidence of the depressing effect of the earlier years of the war on the trade in these articles. Thereafter an upward tendency in quantity and value developed but, although the value of imports for 1918 and the two years since the armistice have averaged over twice the value of imports for 1913, the quantity remained considerably less than the 1913 figure until the year ending June 30, 1921, when it was nearly reached.

The tables following give the quantity and value of Japanese imports of iron pipes and tubes from 1913 to June 30, 1921, and shows that the United States has been the source since 1913 of about three-fourths of the total imports:

Imports of iron pipes and tubes (elbows and joints, drawn, and "other," coated and not coated with base metals), 1913-1921.

QUANTITIES.

[In thousands of kin.]

	1913	1914	1915	1916	1917	1918	1919	1920	1921, (January- June).	1921 year end June 30
Iron pipes and tubes:										
Elbows and joints.....	1,645	740	196	154	294	244	404	762	472	
Cast.....	755	693	49							
Drawn.....	1,555	888	317	207	154	174	1,190	1,678	282	1.0
Other—										
Not coated with met- als.....				26,464	43,439	55,788	50,111	66,674	35,176	70.7
Coated with base met- als.....	71,980	46,645	14,551	1,267	1,390	1,357	973	2,249	1,000	1.4
Total.....	75,935	48,066	15,113	28,092	45,277	57,563	52,677	71,363	36,930	74.0

VALUES.

[In thousands of yen.]

Iron pipes and tubes:										
Elbows and joints.....	301	148	32	32	88	98	207	337	241	43
Cast.....	76	63	5							
Drawn.....	257	173	63	75	91	82	698	644	157	47
Other—										
Not coated with metals				3,081	8,299	13,211	11,804	13,234	6,483	13.49
Coated with base met- als.....	6,301	3,745	1,280	246	328	385	465	878	323	45
Total.....	6,935	4,129	1,380	3,434	8,806	13,776	13,174	15,093	7,204	14.84
Average value in yen per kin..	0.09	0.08	0.09	0.12	0.19	0.24	0.25	0.21	0.20	0.20

Imports of iron pipes and tubes (elbows and joints, drawn, and "other," coated and not coated with base metals), by countries of origin, 1913-1921.

[Values in thousands of yen.]

Year.	Total value.	From Ger- many.	From Great Britain.	From United States.	From other coun- tries.	Total quantity in thou- sands of kin.	Average value yen per kin.
1913.....	6,935	1,575	1,551	3,653	156	75,935	0.09
1914.....	4,129	662	794	2,564	109	48,066	0.08
1915.....	1,380		256	1,071	53	15,113	0.09
1916.....	3,434		660	2,725	49	28,092	0.12
1917.....	8,806		783	7,878	145	45,277	0.19
1918.....	13,776		753	12,924	99	57,563	0.24
1919.....	13,174		1,605	11,402	167	52,677	0.25
1920.....	15,093		2,968	12,054	71	71,363	0.21
1921 (January-June).....	7,204		1,192	5,878	134	36,930	0.20

PERCENTAGE INCREASE OR DECREASE (-).

1913-1917.....	27	—49	115	—7	
1913-1918.....	99	—51	254	—36	
1913-1919.....	90	3	212	9	
1913-1920.....	118		91	—53	
1919-1920.....	14		85	—58	

Imports of miscellaneous iron and steel products, 1913-1921.

[Values in thousands of yen.]

Year.	Total.	Ribbons.	Wire rope and twisted wire.	Other iron and steel, n. e. s.
1913	889	396	407	86
1914	681	242	369	70
1915	457	248	119	90
1916	907	579	183	145
1917	610	242	170	198
1918	1,298	863	43	392
1919	1,378	892	208	278
1920	1,521	882	258	381
1921 (January-June)	989	445	329	215

CHIEF COUNTRY OF ORIGIN.

1917	Sweden.	Great Britain.	United States.	United States.
1918	United States.	do.....	China...	Do.
1919	do.....	do.....	United States.	Do.

Metals other than iron and steel.—Imports of metals other than iron and steel expanded enormously during the war in both quantity and value. From 14 million yen in 1913 the value of imports advanced to 45 million yen in 1916 and then, after a slight recession, to 67 million yen in 1919. The year 1920, however, shows a downward tendency in quantity and value, and the decline became almost precipitous during the first six months of 1921.

During 1915 and 1916 Japan began purchasing from foreign countries quantities of metals which formerly barely entered into her import trade, such as 6½ million yen worth of antimony in 1915, 7 million yen in 1916, and 5 million yen in 1917; also brass and bronze, over 15 million yen in 1916 and 11 million yen in 1917; after the years mentioned, trade in these metals not usually imported dwindled down to almost nothing again. Copper was the most important import for two years after the armistice with foreign purchases valued at 26.3 million yen in 1919 and 22.3 million yen in 1920, but this trade practically disappeared in 1921.

Normally, Japan imports for its industries considerable quantities of zinc, lead, tin, and nickel, and the Japanese statistics show that the value of imports of these four metals, which are named in order of importance for 1913, constituted together in that year about two-thirds of the total value of imports of nonferrous metals. The imports of these metals, zinc, lead, tin, and nickel, exhibited during the greater part of the war no marked tendencies either upward or downward except lead, imports of which, increased to 8 million yen in 1916 as compared with an annual average of 3 million yen for the three preceding years. After a slight recession in 1917, lead imports in 1918 advanced in value to 15 million yen and in quantity to

36,500 tons. Imports of tin increased somewhat in 1917 and considerably more in 1918, the value for the latter year being 8.3 million yen, three and one-half times the 1913 figure. Both zinc and nickel, especially the former, made notable advances in 1919. Although the import figures for the group as a whole for both quantity and value for the first six months of 1921 reveal a downward course toward normal, it is probable that the trade in these four metals will continue in excess of pre-war averages.

The import values and quantities of metals in this group, other than iron and steel, from 1913 to June 30, 1921, are shown in the following tables:

Imports of certain metals other than iron and steel (excluding ores), 1913-1921.

VALUES.

[In thousands of yen.]

Metals.	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
Platinum.....	526	209	186	728	319	53	179	2,349	514
Aluminum.....	224	391	424	2,044	2,695	1,678	2,517	2,877	754
Copper:									
Ingots and slabs.....	62	16	169	1,733	3,583	680	26,304	22,261	124
Other.....	317	164	236	363	312	82	24	38	23
Lead:									
Ingots and slabs.....	2,616	2,950	2,910	7,463	5,871	14,747	10,897	7,115	4,349
Other.....	201	169	353	559	289	308	207	157	128
Tin:									
Ingots and slabs.....	2,320	2,063	1,829	1,797	3,781	8,271	6,954	7,448	2,707
Other.....	57	22	6	22	15	41	23	40	15
Zinc:									
Ingots, slabs, and grains.....	1,566	709	1,278	1,966	1,764	1,367	8,447	2,045	2,494
Other.....	1,825	1,160	1,859	1,317	1,415	1,770	1,198	1,500	366
Nickel:									
Ingots and grains.....	1,421	1,593	1,601	2,009	1,032	1,213	4,139	4,935	1,376
Other.....			87	189	155	237	256	422	49
Mercury.....	325	190	433	1,579	929	1,589	2,881	2,137	236
Bismuth.....			350	413	251	195	637	596	126
Antimony.....			6,655	7,033	5,146	2,462	550	280	247
Brass and bronze:									
Ingots and slabs.....	228	145	1,070	14,354	10,145	891	207	33	
Other.....	590	306	650	942	952	522	797	1,283	686
German silver.....	34	20	5	15	34	83	50	149	(¹)
Solder.....	134	142	73	224	249	896	34	162	(¹)
Antifriction metals.....	77	62	62	23	50	69	41	36	(¹)
Precious metals and gilt or silver metals.....	34	16	7	16	22	14	38	46	(¹)
All other metals:									
Ingots, slabs, and grains.....	1,043	1,052	35	94	229	27	144	126	(¹)
Bars, rods, sheets, plates, ribbons, bands, wires, pipes, and tubes.....	249	107	29	146	180	168	373	96	(¹)
Other.....	110	74	65	198	98	49	34	95	329
Total.....	13,959	11,560	20,372	44,927	39,516	37,414	66,931	56,226	14,523

¹ Statistics for 1921 not available.

*Imports of certain metals other than iron and steel (excluding ores),
1913-1921—Continued.*

QUANTITIES.

[In thousands of kin.¹]

Metals.	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
Platinum ¹	1 313	1 114	1 103	1 231	1 107	1 15	1 42	1 415	1 152
Aluminum.....	518	802	813	1,260	1,591	1,482	2,536	3,254	1,001
Copper:									
Ingots and slabs.....	194	54	579	4,198	8,567	1,310	46,465	38,272	330
Other.....	447	265	773	990	709	158	48	57	82
Lead:									
Ingots and slabs.....	24,790	25,830	24,310	34,673	26,674	60,212	59,706	34,890	31,819
Other.....	1,307	1,069	2,155	2,596	1,176	1,086	760	710	626
Tin:									
Ingots and slabs.....	1,957	2,184	1,990	1,839	3,378	4,756	5,024	5,264	2,936
Zinc:									
Ingots, slabs, and grains.....	9,883	4,606	4,866	5,414	7,512	4,083	34,907	8,457	15,922
Other.....	12,670	9,063	9,253	4,204	3,246	3,453	2,999	4,328	1,730
Nickel:									
Ingots and grains.....	1,578	1,684	1,594	1,808	907	867	2,845	4,287	1,339
Other.....	.....	.....	62	115	89	128	130	377	71
Mercury.....	258	149	205	427	290	421	744	627	88
Bismuth.....	.....	.....	52	64	34	25	79	88	24
Antimony.....	.....	.....	23,949	18,683	29,210	10,619	3,265	1,460	1,951
Brass and bronze:									
Ingots and slabs.....	727	493	6,174	71,043	44,207	2,860	809	134	.....
Other.....	1,456	678	2,716	3,386	2,466	1,286	1,917	2,459	2,374

¹ In case of platinum, where the quantities are small, the actual number of kin are shown.

From the preceding tables the average yearly import prices in yen per kin of selected metals have been calculated and are as follows:

Imports of selected metals other than iron and steel, 1913-1921.

AVERAGE VALUE.

[Yen per kin.]

Metals.	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
Platinum.....	1,682.00	1,832.00	1,808.00	3,150.00	2,985.00	3,533.40	4,261.91	5,660.24	3,383.23
Aluminum.....	.43	.49	.52	1.62	1.69	1.13	.99	.88	.75
Copper:									
Ingots and slabs.....	.32	.30	.29	.42	.42	.52	.57	.58	.38
Other.....	.71	.62	.30	.37	.44	.52	.50	.67	.28
Lead:									
Ingots and slabs.....	.11	.11	.12	.22	.22	.24	.18	.20	.14
Other.....	.15	.16	.16	.22	.25	.28	.27	.22	.21
Tin:									
Ingots and slabs.....	1.19	.94	.92	.98	1.12	1.74	1.38	1.41	.92
Zinc:									
Ingots, slabs, and grains.....	.16	.15	.26	.36	.23	.34	.24	.24	.16
Other.....	.14	.13	.20	.31	.44	.51	.40	.35	.21
Nickel:									
Ingots and grains.....	.90	.95	1.00	1.11	1.14	1.40	1.46	1.15	1.03
Other.....	.....	.....	1.40	1.64	1.74	1.85	1.97	1.12	.69
Mercury.....	1.26	1.28	2.11	2.99	3.20	3.78	3.87	3.41	2.69
Bismuth.....	.....	.....	6.73	6.45	7.38	7.80	8.07	6.78	5.25
Antimony.....	.....	.....	.28	.38	.18	.23	.17	.19	.13
Brass and bronze:									
Ingots and slabs.....	.31	.29	.17	.20	.23	.32	.26	.25	.....
Other.....	.40	.45	.24	.28	.38	.41	.42	.52	.29

The peak in prices of most imported metals, according to the above figures, was reached in 1918 or 1919. The exceptions are antimony at 0.38 yen per kin in 1916, aluminum at 1.69 yen per kin in 1917 and copper and platinum in 1920. The average import price of

every metal listed above is lower for the first six months of 1921 than the preceding year, yet higher than the pre-war 1913 figure except zinc ingots and slabs, and copper, "other." The 1921 prices for platinum and mercury are more than double those of 1913.

The imports by years and the chief foreign sources of the five principal nonferrous metals entering into the import trade of Japan in the more recent years, namely, tin ingots and slabs, nickel ingots and grains, antimony, brass and bronze ingots and slabs, and lead ingots and slabs are presented in the following table:

Imports of certain nonferrous metals, by countries of origin, 1913-1921.

[Values in thousands of yen.]

Metals.	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June)
Tin (ingots and slabs) from—									
China.....	406	311	298	226	401	1,657	72	701	401
Straits Settlements.....	1,617	1,667	1,430	1,465	2,929	4,663	4,759	3,863	1,865
Other countries.....	297	85	101	106	451	1,951	2,123	2,881	609
Total.....	2,320	2,063	1,829	1,797	3,781	8,271	6,954	7,448	2,707
Percentage supplied by Straits Settlements.....	69.70	80.80	78.18	81.52	76.47	56.37	68.44	51.86	62.18
Nickel (ingots and grains) from—									
Great Britain.....	1,239	1,405	1,244	1,453	587	176	613	(1)	(1)
United States.....	183	183	357	556	440	1,037	3,526	(1)	(1)
Other countries.....	182	5	.....	.....	5	.....	.....	(1)	(1)
Total.....	1,421	1,593	1,601	2,009	1,032	1,213	4,139	4,935	1,376
Percentage supplied by United States.....	.....	11.49	22.30	27.69	42.64	85.50	85.18	.....	.....
Antimony from—									
China.....	.....	.....	6,630	6,919	5,076	2,462	550	(1)	(1)
Other countries.....	.....	.....	25	114	70	.....	.....	(1)	(1)
Total.....	.....	.....	6,655	7,033	5,146	2,462	550	280	.....
Percentage supplied by China.....	.....	.....	99.62	98.38	98.64	100.00	100.00	.....	.....
Brass and bronze (ingots and slabs) from—									
China.....	12	.....	851	13,745	9,545	814	165	(1)	(1)
Kwantung.....	81	51	138	471	393	44	3	(1)	(1)
Other countries.....	135	94	81	138	207	33	39	(1)	(1)
Total.....	228	145	1,070	14,354	10,145	891	207	33	.....
Percentage supplied by China.....	5.26	.....	79.53	95.76	94.09	91.35	79.72	.....	.....
Lead ingots and slabs from—									
China.....	70	46	139	524	193	162	17	.....	.....
United States.....	33	644	498	3,293	1,001	5,376	3,219	1,346	911
Australia.....	2,429	2,199	2,213	3,501	4,486	8,598	5,117	3,029	435
Other countries.....	84	61	60	145	188	611	2,544	2,740	2,973
Total.....	2,616	2,950	2,910	7,463	5,871	14,747	10,897	7,115	4,349
Percentage supplied by United States.....	1.26	21.83	17.17	44.12	17.10	36.45	29.54	18.92	21.64

¹ Statistics by countries for 1920 and 1921 not available.

The Straits Settlements supplied over 70 per cent and China about 12 per cent of all the tin imported into Japan during the last eight and one-half years, while China furnished practically all the antimony and, since 1915, nearly all the brass and bronze.

Before the war Great Britain controlled the Japanese nickel import market, but during the war years the United States entered the trade, which improved relatively each year until 1918 and 1919, when over 85 per cent of the total Japanese imports of nickel came from the United States. Statistics are not yet available to determine if Great Britain has regained any of her pre-war supremacy since 1919.

Australia supplied Japan with nearly all its imports of lead prior to 1915, but beginning with 1916 the United States has been a serious competitor and surpassed Australia during the first six months of 1921. During the last eight and one-half years Australia shipped 54 per cent and the United States 28 per cent of the total Japanese imports of lead ingots and slabs.

EXPORTS OF ORES AND METALS.

Exports of ores and metals before the war had constituted about 5 per cent of the total value of exports and over 10 per cent for two years during the conflict, reaching the value of approximately 172 million yen in 1917. Beginning in 1918, however, there has been such a rapid decline in exports of these commodities that their value for the year ending June 30, 1921, was about 25 per cent less than in 1913.

Before the war the exports of ores and metals would have been negligible except for copper, which metal contributed about 90 per cent of the total value in 1913 and 1914. During the war exports of copper, chiefly in the form of ingots and slabs, increased from 28.5 million yen in 1914 to 96.3 million yen in 1917, but fell back even more rapidly to 25.9 million yen in 1919 and 12.7 million yen in 1920. This last figure of copper exports is less than half the value in 1913, while the quantity for 1920 was about 11,000 tons, as compared with 43,000 tons for 1913. An upward trend, however, in the copper export trade has apparently developed during the first six months of 1921, especially in ingots and slabs.

Prior to 1917 Japan had exported comparatively little iron. In that year, however, she shipped to foreign countries exports valued at 12.6 million yen, and in 1918 over 29 million yen. Although thereafter the tendency has been downward, iron products since 1918 have been second in value to those of copper in Japan's export trade in ores and metals. Exports of zinc ingots and slabs in 1916 and 1917 were valued at 19 million yen and 21 million yen, respectively, but since then this trade has rapidly diminished to virtually nothing. A somewhat similar course developed in the exports of antimony, as well as brass and yellow metal, with exports of the former valued at 9.4 million yen in 1916, and of the latter metal group at 26.7 million yen in 1917, but contrary to zinc, the export trade in these metals had developed somewhat before the war. Ores have not been much of a factor in the export trade of Japan, tungsten being the only ore the exports of which have exceeded a million yen in any one year since 1913.

This export trade in ores and metals from 1913 through June 30, 1921, is given in detail in the following table:

Exports of ores and metals, 1913-1921.

VALUES.

(In thousands of yen.)

	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
Ores:									
Zinc.....	943	470	361	183	27	2,822	1,033	105	88
Tungsten.....					1,710	588	476	320	57
Manganese.....					588	353	476	320	57
Other.....	1	119	938	2,380	763	491	533	185	3
Metals:									
Iron—									
Ingots and slabs.....					794	2,686	2,661	1,080	144
Bars, rods, plates, and sheets.....					5,023	14,881	8,848	7,887	1,383
Wire ropes.....					3,634	6,538	1,436	712	391
Pipes and tubes.....	67	48	199	930	2,040	2,991	3,008	1,915	410
Other.....	332	323	253	355	1,158	2,062	3,035	1,858	290
Copper—									
Ingots and slabs.....	28,184	27,197	44,264	66,119	87,495	37,749	19,647	5,139	5,963
Plates and sheets.....	240	1,029	1,446	936	1,365	2,376	3,631	3,881	227
Wire.....	182	242	453	2,954	4,378	4,578	1,547	3,294	253
Other.....					3,050	6,112	1,065	408	103
Tin foil.....					347	798	1,426	941	361
Zinc, ingots and slabs.....				19,251	20,948	9,067	2,936	115	15
Antimony.....	468	1,117	7,707	9,477	8,441	1,552	587	342	31
Brass and yellow metals—									
Bars and rods.....					4,545	938	240	348	28
Plates and sheets.....	213	246	1,660	8,056	18,769	6,952	3,010	5,378	554
Other.....	109	107	256	406	3,377	2,560	967	1,322	151
All other.....	716	751	7,182	9,385	3,422	3,963	2,993	2,337	201
Total.....	31,455	31,649	64,719	120,432	171,874	109,459	59,079	37,655	10,555

QUANTITIES.

(In thousands of kin.¹)

	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
Ores:									
Zinc.....	456	236	102	36	3			25	
Tungsten.....					12	20	11	1	
Metals:									
Iron—									
Ingots and slabs.....					4,746	11,020	23,335	10,504	2,936
Bars, rods, plates, and sheets.....					23,968	44,351	44,041	43,293	10,562
Wire ropes.....					11,319	8,974	2,397	1,604	1,314
Pipes and tubes.....	1,047	642	2,391	7,517	14,051	6,927	12,526	8,047	2,064
Other.....	15,154	16,012	10,655	6,962	6,643	7,956	33,110	17,109	4,866
Copper—									
Ingots and slabs.....	70,227	73,540	95,684	98,950	120,322	53,440	32,406	8,733	13,974
Plates and sheets.....	536	2,500	2,735	1,256	1,623	2,464	4,693	4,877	332
Wire.....	378	505	879	4,191	5,805	5,713	1,988	4,633	441
Other.....					3,581	7,137	1,421	476	151
Tin foil.....					781	1,575	2,944	1,901	1,145
Zinc, ingots and slabs.....				38,690	61,390	28,305	9,472	373	76
Antimony.....	2,671	7,179	14,407	14,994	23,788	4,565	2,526	1,378	161
Brass and yellow metal—									
Bars and rods.....					5,586	1,274	354	510	48
Plates and sheets.....	536	636	3,041	10,212	20,440	7,750	4,061	6,625	1,124
Other.....	275	234	536	530	4,687	3,039	1,217	1,859	247

AVERAGE VALUE.

(In yen per kin.)

	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
Zinc ingots and slabs.....				0.50	0.34	0.32	0.31	0.31	0.20
Iron pipes and tubes.....	0.06	0.07	0.08	.12	.27	0.43	0.24	0.23	0.14
Copper:									
Ingots and slabs.....	.40	.37	.45	.67	.73	.71	.61	.59	.43
Plates and sheets.....	.45	.41	.53	.75	.84	.96	.77	.80	.68
Wire.....	.48	.48	.52	.70	.76	.80	.78	.71	.57
Antimony.....	.18	.16	.54	.63	.35	.34	.23	.25	.19
Brass plates and sheets.....	.40	.39	.55	.79	.92	.90	.74	.81	.49

¹ Except zinc and tungsten ores, which are in thousands of piculs.

The last section of this table shows that the general trend of export prices from 1913 and 1914 was upward until 1917 or 1918 in all the metals listed except antimony and zinc ingots which reached the price peak in 1916. Since the armistice, the downward tendency has been evident in all metal prices, the greatest drop being during the last months of 1920 and the first half of 1921, although in no instance has the average price of 1913 and 1914 been reached.

Japanese exports of copper ingots and slabs, and zinc ingots and slabs by countries of destination, are given in the following tables:

Exports of copper, ingots and slabs, 1913-1921.

[Values in thousands of yen.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920 ¹	1921 (January-June). ¹
China.....	9,401	9,227	1,015	1,630	6,364	9,236	14,143	.....	.....
Kwantung.....	135	103	126	99	116	1,138	1,127	.....	.....
British India.....	1,415	1,649	852	98	5,032	3,054	1,380	.....	.....
Asiatic Russia.....	.....	2,751	24,868	39,294	11,913	124	1	.....	.....
Great Britain.....	5,208	4,053	9,064	16,829	30,642	6,174	450	.....	.....
France.....	3,956	2,224	2,870	5,021	22,196	10,371	143	.....	.....
United States.....	3,304	2,903	5,383	3,054	3,203	47	.....	.....	.....
Other countries.....	4,765	4,287	86	94	8,029	7,605	2,403	.....	.....
Total.....	28,184	27,197	44,264	66,119	87,495	37,749	19,647	5,139	5,963

PER CENT DISTRIBUTION.

China.....	33.35	33.92	2.29	2.47	7.27	24.47	72.01	.....	.....
Kwantung.....	.48	.37	.28	.15	.13	3.02	5.74	.....	.....
British India.....	5.03	6.08	1.92	.15	5.75	8.09	7.02	.....	.....
Asiatic Russia.....	.....	10.11	56.18	59.43	13.62	8.33	.....	.....	.....
Great Britain.....	18.48	14.90	20.47	25.45	35.02	16.35	2.28	.....	.....
France.....	14.03	8.18	6.49	7.59	25.37	27.47	.72	.....	.....
United States.....	11.72	10.67	12.16	4.62	3.66	.12	.....	.....	.....
Other countries.....	16.91	15.77	.21	.14	9.18	20.14	12.22	.....	.....
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	.....	.....
Total quantity in thousands of kin.....	70,227	73,540	95,684	98,950	120,322	53,440	32,406	8,733	13,974
Average value, yen per kin..	.40	.37	.45	.67	.73	.71	.61	.59	.43
Per cent exports of copper ingots and slabs are of total export trade.....	4.46	4.60	6.25	5.86	5.46	1.92	.94	.26	1.04

¹ Statistics by countries not available for 1920 and 1921.

Exports of zinc, ingots and slabs, 1916-1921.¹

[Values in thousands of yen.]

Exported to—	1916	1917	1918	1919	1920 ²	1921 (January-June) ²
British India.....	287	1,196	1,868	133	.....	.....
Asiatic Russia.....	11,328	3,899	.....	1	.....	.....
Great Britain.....	5,373	10,977	2,339	2,103	.....	.....
France.....	2,235	3,566	3,517	.....	.....	.....
Other countries.....	28	1,310	1,342	698	.....	.....
Total.....	19,251	20,948	9,066	2,935	115	15

¹ No exports of zinc are recorded for the years 1913-1915.

² Statistics by countries not available for 1920 and 1921.

Exports of zinc, ingots and slabs, 1916-1921—Continued.

PER CENT DISTRIBUTION.

Exported to—	1916	1917	1918	1919	1920	1921 (Jan.- June).
British India.....	1.49	5.71	20.80	4.54	.....	.....
Asiatic Russia.....	58.84	18.61	.....	.....	.....	.....
Great Britain.....	27.91	52.40	25.80	71.67	.....	.....
France.....	11.61	17.03	38.80	.....	.....	.....
Other countries.....	.15	6.25	14.80	23.79	.....	.....
Total.....	100.00	100.00	100.00	100.00	.....	.....
Total quantity in thousands of kin.....	38,690	61,390	28,305	9,472	373	76
Percentage exports of zinc are of total ex- port trade.....	1.71	1.31	.46	.14	.....	.....

Before and since the war China has been the chief purchaser of Japanese copper, securing on the average about one-third of the total exports in 1913 and 1914 and nearly three-fourths of the total in 1919. During three years of the war, namely, 1915, 1916, and 1917, Asiatic Russia imported relatively large quantities of copper from Japan, valued at 25 million yen, 39 million yen, and 12 million yen, respectively. After 1917, as before the war, Japan's copper ingot and slab exports to Asiatic Russia have been negligible. During these same war years exports of copper ingots and slabs to Great Britain advanced from 9 million yen in 1915 to 30.6 million yen in 1917, exports to France increased from 2.9 million yen in 1915 to 22.2 million yen in 1917, but Japan's trade with both of these countries in the first six months of 1921 dropped to practically nothing, although in 1913 Great Britain purchased 5.2 million yen and France 4 million yen. The United States purchased 11.7 per cent in 1913 and 12 per cent in 1915, of the total Japanese exports of copper ingots and slabs, but by 1917 the ratio to the total had fallen to 3.7 per cent, and since then has been negligible. During the last three years of the war the proportion of Japanese exports of zinc ingots and slabs shipped to Great Britain was 38 per cent, to Asiatic Russia 30 per cent, and to France 19 per cent of the total exports of this metal.

METAL MANUFACTURES.

(Group XV of imports and Group XIV of exports.)

The value of the various articles which the Japanese officially classify as metal manufactures have never been important factors in the foreign trade of Japan. The value of the imports of this group reached their maximum of 3.2 per cent of the total imports of Japan during the year ending June 30, 1921, while the value of exports equaled 2.8 per cent of the total exports for the year ending June 30, 1919. Before the war imports of metal manufactures were of much greater value than exports, being about four times larger in 1913; after the war, this excess of imports was renewed, reaching a two-to-one ratio for the year ending June 30, 1921. Imports of metal manufactures suffered a severe decline in 1914 and 1915, their value

falling from 15 million yen in 1913 to about 4 million yen in 1915. The advance thereafter, however, was even more rapid, mounting to 18 million yen in 1917, 33 million yen in 1918, and 47 million yen in 1920. Upon exports the war had a stimulating effect from its beginning. From 3.6 million yen for the year 1913 the value of exports increased to 16.6 million yen in 1916 and to 48.5 million in 1918. Since the armistice there has been a recession to 43.3 million yen in 1919 and to 23 million yen for the year ending June 30, 1921. These figures are shown in the following table:

Trade in metal manufactures, 1913-1921.

[Values in thousands of yen.]

Year.	Imports.		Exports.		Year.	Imports.		Exports.	
	Value.	Per cent of total import trade.	Value.	Per cent of total export trade.		Value.	Per cent of total import trade.	Value.	Per cent of total export trade.
Calendar year—					Year ending June 30—				
1913.....	15,346	2.10	3,585	0.57	1919.....	32,400	1.73	52,776	2.79
1914.....	8,468	1.42	3,490	.59	1920.....	48,327	1.96	43,886	1.24
1915.....	4,119	.77	7,760	1.10	1921.....	48,448	3.19	23,008	1.09
1916.....	10,665	1.41	16,600	1.47					
1917.....	18,124	1.75	29,381	1.83					
1918.....	33,351	2.00	48,563	2.47					
1919.....	43,796	2.01	43,291	2.06					
1920.....	47,010	2.01	38,448	1.97					
1921 (January-June).....	22,724	2.84	7,194	1.25					
Increase in imports:					Increase in exports:				
				Per cent.					Per cent.
1918 over 1913.....				117	1918 over 1913.....				1,254
1920 over 1913.....				206	1920 over 1913.....				972

Imports.—The two important imports in this group are iron nails (uncoated) and construction materials, and these are the only articles for which import statistics by countries of origin are available later than 1919. Before the war Germany was the most important source of supply for the iron nails, shipping about half of the total imports for 1913 and 1914. During these two years the United States ranked second, but from then on to the present time has furnished practically the entire amount. A similar advantage has been possessed by the United States in Japan's import trade in construction materials, and these articles since 1913 have constituted nearly one-half of the total value of imports of this group. Japan purchased from foreign countries in 1913, construction materials valued at nearly 8 million yen, of which the United States furnished 45 per cent; after the war started imports fell to about 800,000 yen, but advanced each succeeding year, reaching nearly 17 million yen in 1918 and over 24 million in 1919. A noticeable feature of the trade is that it suffered no depression as late as June, 1921, and at that time was much above the 1913 imports when measured in value. The following two tables give the Japanese imports by countries of origin for iron nails (not coated with metal) and construction materials:

Imports of iron nails (not coated with metal), 1913-1921.

[Values in thousands of yen.]

Imported from—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June)
Germany.....	648	288	—	6	—	—	—	—	—
Belgium.....	128	91	1	6	—	—	—	—	—
Great Britain.....	75	11	40	179	25	—	55	—	—
United States.....	498	92	410	3,895	2,482	5,614	4,898	6,365	2,131
Other countries.....	21	26	87	117	23	195	172	331	37
Total.....	1,370	508	538	4,203	2,530	5,809	5,125	6,696	2,324
Total quantity in thousands of kin.....	22,761	8,712	5,850	35,646	15,721	27,422	27,177	38,930	14,414
Average value, yen per kin....	0.06	0.06	0.09	0.12	0.16	0.21	0.19	0.17	0.17

Increase in—	Per cent.	Increase in—	Per cent.
Value, 1920, compared with 1913.....	389	Unit value, 1920, compared with 1913.....	18
Quantity, 1920, compared with 1913.....	71		

Imports of railroad and construction materials,¹ 1913-1921.

[Values in thousands of yen.]

Year.	Total.	From Great Britain.	From United States.	From other countries.	Per cent supplied by United States.
1913.....	7,686	1,443	3,496	2,747	45.49
1914.....	3,258	313	2,027	918	62.22
1915.....	822	86	677	59	82.36
1916.....	1,073	90	799	184	74.46
1917.....	9,700	86	9,317	297	96.05
1918.....	16,924	54	16,418	452	96.36
1919.....	24,377	48	24,242	87	99.46
1920.....	23,029	—	22,828	201	99.12
1921 (January-June).....	12,868	—	12,638	230	98.14

¹ Includes rails and other metal materials for railways; metal posts and materials for electric lines; materials for bridges, vessels, docks, etc.; gas holders, tanks for liquids and parts thereof.

The other articles, mainly of iron, included in the import schedule of this group, are listed in the following table:

Imports of metal manufactures, 1913-1921.

[Values in thousands of yen.]

	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June)
Screws, bolts, and washers:									
Iron screws.....	193	247	220	433	697	962	1,391	1,288	299
Iron bolts, nuts, and washers.....	462	281	79	186	233	1,549	1,139	814	323
Iron rivets.....	125	71	47	179	263	450	244	173	71
Other.....	248	166	75	44	260	338	755	761	287
Insulated electric wires:									
Armored with metals—									
Submarine telegraphic or telephonic cables.....	51	926	309	1,295	—	7	—	1,613	1,118
Other.....	1,861	374	108	2	3	8	71	2	—
Other.....	150	69	5	22	48	70	146	146	98
Iron anchors.....	41	55	15	200	327	259	178	212	—
Iron chains.....	535	451	209	960	915	823	1,386	892	560
Cocks and valves:									
Iron.....	143	115	40	69	146	78	195	282	246
Other.....	23	21	8	16	16	14	54	71	39
Hinges, hat hooks, and metal fittings, for doors, windows, furniture, etc.....	73	70	25	42	92	286	240	365	244

Imports of metal manufacture, 1913-1921—Continued.

	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
Mechanics' tools, agricultural implements, and parts thereof.....	497	323	184	246	648	1,284	1,890	2,896	926
Drills, bits, reamers, and screw tops.....	174	92	73	232	220	885	978	842	268
Cutlery.....	53	50	19	24	36	37	183	179	.....
Capsules for bottles.....	45	28	34	38	15	40	117	58	.....
Needles and pins.....	105	104	39	93	89	152	329	319	153
Chains (except gold).....	196	150	144	118	81	182	332	557	170
Radiators.....	132	93	39	23	89	144	301	390	125
Typewriters and parts thereof.....	78	62	52	141	254	327	363	460	158
Foreign coins (except gold and silver).....	1	8	489	165	.....	9	.....	.....	.....
Other manufactures:									
Precious metals.....	74	139	77	59	146	151	253	206	.....
Copper, brass, and bronze.....	161	88	50	77	92	129	179	243	.....
Iron.....	812	676	398	701	1,194	2,385	3,478	4,346	1,515
All other metal manufactures, n. e. s.....	57	43	21	24	30	49	92	170	742
Total.....	6,290	4,702	2,759	5,389	5,894	10,618	15,294	17,285	7,332
Nails.....	1,370	508	538	4,203	2,530	5,809	5,125	6,696	2,524
Construction materials.....	7,686	3,258	822	1,073	9,700	16,924	24,377	23,029	12,868
Total metal manufactures.....	15,346	8,468	4,119	10,665	18,124	33,351	43,796	47,010	22,724

No articles predominate in this list, although the value of imports of mechanics' tools and agricultural implements, iron chains, and iron screws are for most years in excess of the others. Many of these articles are normal peace-time needs, and the importation value of 6,000,000 yen in 1913 receded to 2,759,000 yen in 1915, not fully recovering the loss until 1918 when a value of 10.6 million yen was recorded. After the armistice, the trade advanced to 15.3 million yen in 1919 and 17.3 million yen in 1920. Primarily because of a lowering of unit prices, the value of the imports of these articles for the first six months of 1921 fell proportionately slightly below the 1920 amount.

Exports.—Japanese exports of metal manufactures are grouped by basic metals, with the exception of several articles of iron listed separately, as shown in the following table:

Exports of metal manufactures, 1913-1921.

[Values in thousands of yen.]

	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
Insulated electric wire.....	251	394	900	1,126	3,119	8,324	8,412	8,013	1,246
Implements and tools of farmers and mechanics.....	114	117	203	307	490	2,190	914	930	241
Iron pans and rice kettles.....	36	22	66	345	307	370	540	664	.....
Manufactures of:									
Copper.....	44	49	379	140	237	874	366	235	94
Brass.....	141	135	458	2,897	6,620	3,611	2,027	2,462	473
Bronze.....	445	286	172	267	261	186	692	781	120
Antimony.....	999	636	817	961	619	1,301	1,856	2,123	236
Aluminum.....	125	42	547	230	871	1,232	1,791	1,000	100
Nickel metal.....	.....	.....	.....	.....	427	1,193	965	929	204
Iron—									
Enameled.....	.....	.....	.....	.....	2,702	3,766	5,330	6,338	1,497
Kerosene pans.....	.....	.....	.....	.....	356	346	3,276	379	2
Other, n. e. s.....	689	1,169	2,998	9,462	12,950	24,436	15,856	13,690	2,866
All other.....	741	640	1,221	865	422	737	1,266	874	115
Total.....	3,585	3,490	7,761	16,600	29,381	48,563	43,291	38,448	7,194

Exports of metal manufactures, 1913-1921—Continued.

PRINCIPAL COUNTRIES OF DESTINATION, IN ORDER NAMED.

	1917	1918
Insulated electric wire.....	China, Kwantung, British India..	Australia, British India, China, Dutch East Indies.
Implements and tools of farmers and mechanics.	China, Kwantung, United States..	Kwantung, British India, China.
Iron pans and rice kettles	Straits Settlements, China, Kwantung.	Straits Settlements, China, Kwantung.
Manufactures of:		
Copper.....	China, British India.....	British India, Australia, Hong-kong.
Brass.....	Asiatic Russia, Dutch East Indies, British India.	British India, Dutch East Indies, Australia.
Bronze.....	United States, British India.....	Australia, United States.
Antimony.....	Great Britain, Australia, British India.	Australia, Great Britain, British India.
Aluminum.....	Dutch East Indies, China, Hong-kong.	China, Dutch East Indies, British India.
Nickel metal.....	British India, China.....	British India, China, Dutch East Indies.
Iron—		
Enameled.....	China, British India.....	China, British India, Australia.
Kerosene cans.....	Kwantung, Asiatic Russia.....	Straits Settlements, Kwantung.
Other, n. e. s.....	China, Kwantung, British India, Asiatic Russia.	Kwantung, China, British India.
All other.....	Asiatic Russia, China.....	British India, China, Asiatic Russia.

	1919	1920	1921 (January-June)
Insulated electric wire.....	Dutch East Indies, China, Kwantung, Australia.	China, Kwantung, Dutch East Indies.	China, Kwantung, Dutch East Indies.
Implements and tools of farmers and mechanics.	Kwantung, China, Asiatic Russia.	(1).....	(1).
Iron pans and rice kettles.....	Straits Settlements, China, British India.	(1).....	(1).
Manufactures of:			
Copper.....	China, Australia, Kwantung.....	(1).....	(1).
Brass.....	British India, Dutch East Indies, China.	(1).....	(1).
Bronze.....	United States, Great Britain.....	(1).....	(1).
Antimony.....	Great Britain, British India, Australia.	(1).....	(1).
Aluminum.....	China, British India, Asiatic Russia.	(1).....	(1).
Nickel metal.....	British India, Asiatic Russia, China.	(1).....	(1).
Iron—			
Enameled.....	China, British India, Kwantung.....	China, British India, Kwantung.....	China, Kwantung, British India.
Kerosene cans.....	Kwantung, China.....		
Other, n. e. s.....	China, Kwantung, British India.....	(1).....	(1).
All other.....	British India, Siam, China.....	(1).....	(1).

¹ Information not available.

The increase in this export trade from 3.6 million yen in 1913 to 48.5 million in 1918, notwithstanding the rapidly developing home market for these materials, is evidence of the expansion of the metal industries of Japan. Since the armistice, however, the total exports of metal manufactures, measured by value, has gradually declined, and for the first six months of 1921 this fall became precipitous in all articles listed. Insulated electric wire showed the most striking advance, from 251,000 yen in 1913 to over 8.4 million in 1919, a result primarily due, however, to the establishment of a large electrical manufacturing plant in Japan by an American company. The

exports of brass manufactures advanced from 141,000 yen in 1913 to 6.6 million yen in 1917, or 22 per cent in the latter year of the total value of exports of this group. This large amount of brass was purchased mainly by the Russian Government, hence this trade fell decidedly when that country ceased to be an active belligerent and later became unimportant. The exports of enameled iron manufactures increased in value from practically nothing before the war to 3.7 million yen in 1918, 5.3 million yen in 1919, and 6.3 million yen in 1920, ranking second in value to insulated electric wire for these years. The export trade in antimony manufactures, which led with nearly a million yen worth in 1913 and comprised about 28 per cent of the total value of the group, lost considerably during the war, but beginning with 1918 the trade has surpassed its pre-war status, although during the first half of 1921 it again fell off precipitously.

CLOCKS AND WATCHES, SCIENTIFIC INSTRUMENTS, ETC., VEHICLES AND VESSELS, MACHINERY AND ENGINES.

(Group XVI of imports and Group XV of exports.)

To trace the development of the Japanese trade in the articles named above it is necessary to treat the four classes separately, and consequently each group is entered individually in the following tables:

Imports and exports of clocks and watches, scientific instruments, vehicles, vessels, machinery, etc., 1913-1921.

[Values in thousands of yen.]

	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
IMPORTS.									
Clocks and watches, and parts.....	1,227	953	784	1,341	2,182	1,533	4,764	6,390	3,287
Scientific and musical instruments.....	2,665	1,707	997	1,292	2,037	2,698	5,039	7,881	5,083
Vehicles and vessels.....	10,388	6,802	3,863	12,388	13,071	15,840	21,181	24,671	11,959
Machinery and parts.....	36,762	24,942	9,064	16,271	29,838	58,498	89,222	110,571	67,619
Total.....	51,042	34,404	14,708	31,292	47,128	78,570	120,206	149,514	87,948
Percentage imports of clocks, watches, machinery, etc., are of total import trade....	7.0	5.78	2.77	4.14	4.55	4.71	5.53	6.40	11.0
EXPORTS.									
Clocks and watches.....	993	804	1,035	1,186	1,312	1,827	1,832	1,359	422
Scientific and musical instruments.....	527	536	796	2,037	2,717	3,968	4,253	3,715	877
Vehicles and vessels.....	2,406	2,229	5,252	23,282	104,522	89,097	14,343	28,227	5,635
Machinery and parts.....	2,522	1,601	2,948	8,438	9,194	16,797	16,713	16,711	6,453
Total.....	6,448	5,260	10,031	34,943	117,745	110,689	37,171	50,012	13,387
Percentage exports of clocks, watches, machinery, etc., are of total export trade....	1.02	.88	1.42	3.10	7.35	5.64	1.77	2.57	2.33

Imports of these classes of commodities normally are much greater than the exports, though in the three years 1916, 1917, and 1918 this

status was reversed. The statistics for 1919–June, 1921, however, indicate that the pre-war relative condition again prevails. In 1917 exports amounted to over 7 per cent of the total export trade, but in 1921 this had fallen to 2.33 per cent. The import trade has increased since 1913, when it was 7 per cent of the total import trade, to 11 per cent in June, 1921.

Clocks and watches and parts thereof.—Watches usually account for more than 50 per cent of the total importation under this heading and the remainder is, for the most part, movements. Watch imports fell off in 1918 as compared with the preceding year, but in the following year this trade revived. Imports in 1915, the minimum year shown in the table, were valued at 784,000 yen; in 1920 at 6,390,000 yen, and statistics for the first half of 1921 indicate that this increasing valuation is continuing notwithstanding a recent decrease in unit prices. Switzerland and the United States, in the order named, supply over 90 per cent of the Japanese imports of watches and France furnishes a considerable portion of the remainder.

Imports of watches, 1913–1919.

[Values in thousands of yen.]

Year.	Total.	From Switzer- land.	From United States.	From France.	From other countries.
1913.....	844	480	318	13	33
1914.....	515	322	141	28	24
1915.....	494	314	150	10	20
1916.....	855	558	230	52	15
1917.....	1,362	968	349	39	6
1918.....	754	440	309	.....	5
1919 ¹	2,959	2,174	525	13	247

¹ Latest year for which figures for countries of origin are available. Total imports in 1920 were valued at 3,914,000 yen and in 1921 (January–June) at 1,682,000 yen.

The exports consist of “clocks, hanging and standing,” and the statistics show a steady increase in this trade during the years 1914–1919. In 1920 the exports decreased somewhat and the data for the first six months of 1921 indicate a serious decline. Prior to 1915 the bulk of the exports went to China and Hongkong, though smaller amounts were sent elsewhere. More recently the market has become wider, and although about half of the exports still go to China, lesser quantities are shipped to other countries, including Great Britain, France, Belgium, and Argentina. Only a small part of these exports are sent to the United States.

Scientific and musical instruments.—Until 1915 the imports of scientific instruments into Japan had always exceeded the exports of similar articles from that country. The years 1916, 1917, and 1918, however, show an excess of exports, but in 1919 imports again became the larger and appear to be continuing in a more nearly normal status. The principal items imported under this official classification are surgical, philosophical, and musical instruments.

Imports of scientific and musical instruments, 1913-1921.

[Values in thousands of yen.]

Year.	Total.	Surgical.	Philo- sophical.	Musical.	Other. ¹
1913.....	2,666	166	436	206	1,858
1914.....	1,707	185	229	108	1,185
1915.....	997	174	172	56	595
1916.....	1,292	145	244	82	821
1917.....	2,037	220	252	100	1,465
1918.....	2,698	159	257	182	2,100
1919.....	5,039	501	495	309	3,734
1920.....	7,881	766	757	859	5,499
1921 (January-June).....	5,083	344	652	553	3,534

¹ Includes binoculars, microscopes, balances, meters of different kinds, and photographic, telephonic, and telegraphic instruments.

Before the war Japan imported her surgical instruments from the United States, Germany, and Great Britain. With the discontinuance of the German trade greater demand was made upon the United States, and the importations from this country have increased tremendously, on a valuation basis, during the period 1913-1919. Great Britain and France also continues to supply a limited quantity of these instruments. The total value of the imports of this class, however, are not large, amounting to 500,000 yen in 1919.

Import of surgical instruments and parts thereof, 1913-1919.

[Values in thousands of yen.]

Imported from—	1913	1914	1915	1916	1917	1918	1919 ¹
Great Britain.....	10	27	10	15	19	6	38
France.....	4	7	17	9	10	11	20
Germany.....	70	44	6				
United States.....	80	106	141	120	190	139	434
Other countries.....	2	1		1	1	3	6
Total.....	166	185	174	145	220	159	500

¹ The latest year for which figures for countries of origin are available.

Recently the production of scientific instruments in Japan has been increasing, and it is one of the lines of manufacture which may be expected to develop. The manufacture of these instruments in Japan has been done largely by the hand-labor, piece-work system, traditional in her industry, but modern drop forging is now rapidly replacing the more primitive methods in the making of these articles. Japanese exports of scientific instruments increased rapidly in value through the year 1919; in 1920, however, there was a small decrease and the statistics for the first six months of 1921 indicate a tremendous drop. The market for these instruments has been widened along with the war increase in the trade. Until 1916 the exports were largely confined to Far Eastern countries, mainly China, the Straits Settlements, and British India, though small amounts were sent to widely scattered destinations. Now, although the Oriental countries still furnish a market for the major portion of the exports, considerable quantities are sent to such countries as the United States,

Canada, Chile, Argentina, Australia, and Great Britain. Exports to these latter countries in 1919 were valued at 552,000 yen.

The exportation of musical instruments increased greatly during the three years, 1918, 1919, and 1920, but dropped radically in the first half of 1921. These instruments were sent to various countries, mostly in small amounts, the United States being the largest individual market.

Exports of scientific and musical instruments, 1913-1921.

[Values in thousands of yen.]

Year.	Surgi- cal.	Philo- sophi- cal.	Musi- cal.	Other.	Year.	Surgi- cal.	Philo- sophi- cal.	Musi- cal.	Other.
1913.....	132	50	44	301	1920.....	1,054	452	1,205	1,004
1914.....	221	45	35	235	1921 (January- June).....	231	172	240	235
1915.....	212	49	32	503					
1916.....	820	351	37	829					
1917.....	1,129	467	621	500	Percent increase 1920 over 1913..	698	804	2,639	233
1918.....	1,375	496	1,090	1,017					
1919.....	1,325	534	1,098	1,325					

Vehicles and vessels.—The following table shows the imports entered under this heading:

Imports of vehicles and vessels, 1913-1921.

[Values in thousands of yen.]

	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January- June).	Percent increase or de- crease (—) 1913- 1920.
Railway carriages and parts thereof..	2,075	1,981	619	299	2,219	3,097	6,782	7,117	3,233	243
Automobiles and parts:										
Automobiles....	605	241	71	388	1,570	4,524	5,531	4,866	1,947	704
Parts.....	505	258	96	327	1,098	3,136	5,750	5,613	2,534	1,012
Bicycles and parts:										
Bicycles.....	835	391	146	92	123	277	639	1,880	1,084	125
Parts—										
Tires.....	1,039	432	81	21	5	1	6	27	—	—97
Other.....	1,299	645	167	396	587	1,223	1,939	4,813	3,078	271
Steam vessels:										
Not exceeding 10 years of age....	1,793	2,230	1,883	229	423	551	117	173	450	—90
Other.....	2,207	612	752	10,586	6,680	2,901	351	85	—	—96
All other vehicles, and parts, and ves- sels.....	30	12	48	60	366	126	61	97	83	223
Total.....	10,388	6,802	3,863	12,388	13,071	15,840	21,181	24,671	21,181	137

This import trade has increased from 10,000,000 yen in 1913 to nearly 25,000,000 yen in 1920. An analysis of the above table shows that the greatest increase was in automobile parts, automobiles, parts of bicycles, railway carriages and parts thereof, in the order named. Statistics for the six months, January-June, 1921, indicate that the trade continues to increase.

The use of automobiles is increasing in Japan, but there is little manufacture. The importation of parts has recently shown a re-

markable increase, due to the fact that these parts are being imported not only for repairs on cars already brought in but also for the purpose of assembling cars in Japan. The roads and streets in that country are not well adapted to large or heavy motor cars, hence, with the aid of parts imported, domestic manufacturers can produce a car better suited to the Japanese needs. The United States leads in the automobile import trade, with Great Britain and Italy furnishing small amounts. In 1920 the American automobiles brought into Japan represented 96 per cent of the total number imported and 94 per cent of the total import value. The importation of railway carriages and parts is increasing, and it is alleged that the competition of light railways furnishing cheap and frequent service hinders the development of the automobile industry in Japan. Recent reports, however, show that motor transportation is constantly pushing into new fields and baby motor cars are now competing in Yokohama with jinrickishas.

Great Britain and the United States furnish practically the entire importation of bicycles and bicycle parts, the latter country supplying the greater part.

Formerly, Japan imported practically all of the rubber tires used in the Empire. However, in recent years she has built up a domestic manufacture of these and now supplies not only her own needs but exports considerable quantities to Far Eastern countries. In 1913 imports of cycle tires amounted to 321,735 kin, valued at 1,038,701 yen; in 1920 imports amounted to only 7,879 kin, valued at 27,000 yen. Export statistics for all tires show quite the reverse. Tires were not separately enumerated in the export schedule until 1914, when the trade amounted to 662,000 kin, valued at 1,086,000 yen; in 1919 there were exported 3,606,200 kin, valued at 7,114,000 yen, and in 1920, 3,857,000 kin, worth 8,018,000 yen. These exports go mainly to China, the Dutch East Indies, the Straits Settlements, and small amounts to Great Britain.

Japanese exports of vehicles and vessels are given in the following table:

Exports of vehicles and vessels, 1913-1921.

[Values in thousands of yen.]

	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).	Per cent of increase or decrease (-) 1913-1920.
Vehicles and parts:										
Jinrickishas.....	306	225	259	341	290	142	220	308	229	-----
Bicycles.....					168	342	355	305	180	-----
Tires.....		1,086	3,413	4,076	4,084	4,506	7,114	8,018	1,928	-----
All other, and parts.....	410	185	555	1,614	2,271	3,980	3,026	3,767	181	819
Vessels:										
Steam.....	1,669	711	399	17,179	96,679	80,060	3,367	15,592	2,899	834
Other.....	21	22	626	42	30	64	260	237	218	1,028
Total.....	2,406	2,229	5,252	23,252	104,522	89,094	14,342	28,227	5,635	1,073
Number of steam vessels.....	4	10	7	67	79	32	10	13	-----	-----

Steam vessels have always constituted a large percentage of the total value of exports represented in the above table. In 1917, the greatest year of this trade, the value of all steam vessels sold was 96,679,000 yen. Many of the vessels which Japan has sold were old, foreign-built ships, which brought high prices during the war. A post-war slump is evident in this trade from the 1919 figures. Some revival was shown in 1920 but in the six months, January-June, 1921, the tendency has been distinctly downward.

Machinery and engines.—The industrialization of Japan has called for large importations of machinery and the rapid industrial progress of the country has been materially promoted by the introduction of foreign-built machinery, largely American, in recent years. All reports of proposed industrial projects indicate a continued demand for machinery. Japan is constantly expanding her own production of machines but the development of such highly technical manufacturing necessarily proceeds slowly. Immediately after the outbreak of hostilities imports of this type decreased and reached a minimum of 9,000,000 yen in 1915. Later came an increase, the maximum appearing in 1920 when imports were valued at 110,500,000 yen. The statistics for the first six months of 1921 indicate a thriving condition of the trade at this time.

Trade in machinery and engines, 1913-1921.

[Values in thousands of yen.]

Year.	Imports.	Exports.	Year.	Imports.	Exports.
Calendar year:			Year ending June 30:		
1913.....	36,762	2,522	1919.....	78,931	17,536
1914.....	24,942	1,690	1920.....	91,028	18,030
1915.....	9,064	2,948	1921.....	131,758	14,618
1916.....	16,271	8,488			
1917.....	29,838	9,194			
1918.....	58,498	15,797			
1919.....	89,222	16,722			
1920.....	110,571	16,710			
1921 (January-June).....	67,619	6,452			

Per cent.

Increase in import values, 1920, compared with 1913	200
Increase in export values, 1920, compared with 1913	562

Imports of machinery and engines, by countries of origin, 1913-1921.

[Values in thousands of yen.]

Imported from—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
Great Britain.....	17,067	13,440	5,043	7,018	10,384	9,822	16,144	28,423	21,635
France.....	243	248	109	612	338	515	2,005	1,203	445
Germany.....	9,239	5,643	508	104	107	.....	.....	.....	.....
Sweden.....	292	320	402	310	1,176	463	2,455	2,262	1,613
United States.....	9,056	5,035	2,940	7,880	17,033	46,753	66,866	73,536	39,418
Other countries.....	865	262	65	347	800	945	1,752	5,147	4,608
Total.....	36,762	24,948	9,067	16,271	29,838	58,498	89,222	110,571	67,619

Imports of machinery and engines, by countries of origin, 1913-1921—Continued.

PER CENT DISTRIBUTION.

Imported from—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
Great Britain.....	46.43	53.86	55.61	43.14	34.80	16.79	18.09	25.71	32.00
France.....	.66	.99	1.20	3.76	1.13	.88	2.25	1.09	.66
Germany.....	25.13	22.62	5.61	.64	.36				
Sweden.....	.79	1.28	4.43	1.90	3.94	.78	2.75	2.05	2.38
United States.....	24.63	20.19	32.43	48.43	57.08	79.92	74.95	66.52	58.30
Other countries.....	2.36	1.06	.72	2.13	2.69	16.13	1.96	4.63	6.66
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Per cent imports of machinery and engines are of total import trade.....	5.04	4.19	1.70	2.15	2.88	3.51	4.11	4.73	8.48

Textile machines are the most important item in this group and represent approximately from one-sixth to one-fifth of the total. Prior to the war the great bulk of this textile machinery came from England, with Germany furnishing appreciable amounts. Later the sources of supply shifted, and the United States and England have been dividing the trade.

Imports of textile machinery, 1913-1919.

(Values in thousands of yen.)

Imported from—	1913	1914	1915	1916	1917	1918	1919 ¹
Great Britain.....	5,862	4,893	1,642	2,175	4,652	3,926	5,735
France.....	46	163	61	185	132	477	1,437
Germany.....	680	1,137	11	3	39		
United States.....	56	14	40	222	677	4,992	8,885
Other countries.....	37	50	6	4	5	2	126
Total.....	6,681	6,257	1,760	2,589	5,505	9,397	16,183

PER CENT DISTRIBUTION.

Imported from—	1913	1914	1915	1916	1917	1918	1919 ¹
Great Britain.....	87.74	78.20	93.30	84.00	84.50	41.78	35.44
France.....	.69	2.61	3.47	7.15	2.40	5.08	8.88
Germany.....	10.18	18.17	.63	.12	.71		
United States.....	.84	.22	2.27	8.58	12.30	53.12	54.90
Other countries.....	.55	.80	.34	.15	.09	.02	.78
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00

¹ Latest year for which figures for countries of origin are available. The total imports of textile machinery in 1920 were valued at 20,570,000 yen, and in 1921 (January-June) at 18,418,000 yen.

Metal and wood working machines have usually been next in importance among the machinery imports. Great Britain formerly furnished the majority of these imports, though considerable quantities came from both the United States and Germany. During the war the German imports ceased and this country became the main source of supply.

Imports of metal or wood-working machinery, 1913-1919.

(Values in thousands of yen.)

Imported from—	1913	1914	1915	1916	1917	1918	1919 ¹
Great Britain.....	1,895	1,674	279	135	409	251	484
Germany.....	549	336	126	5			
United States.....	783	462	483	1,622	2,995	6,282	9,973
Other countries.....	52	9	3	22	48	109	106
Total.....	3,279	2,481	891	1,783	3,452	6,642	10,563

¹ Last year for which figures for countries of origin are available.

Imports of metal or wood-working machinery, 1913-1919—Continued.

PER CENT DISTRIBUTION.

Imported from—	1913	1914	1915	1916	1917	1918	1919
Great Britain.....	57.80	67.48	31.31	7.52	11.85	3.78	4.58
Germany.....	16.74	13.54	14.14	.28	.....	.....	.....
United States.....	23.88	18.62	54.21	90.97	86.76	94.58	94.42
Other countries.....	1.58	.36	.34	1.23	1.39	1.64	1.00
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00

The imports of steam boilers and parts thereof into Japan increased greatly during the war and the years immediately following as the value in 1919 was about 750 per cent greater than in 1913. Prior to the war and as late as 1916 Great Britain furnished much the greater part of them. Germany also supplied appreciable amounts, with lesser quantities coming from the United States. Starting with 1917, however, the American proportion increased greatly, reaching a maximum of 80 per cent of the total in 1918. The next year, the latest for which data are available, the relative amount of imports from this country decreased materially and those from Great Britain increased.

Imports of steam boilers and parts, 1913-1919.

[Values in thousands of yen.]

Year.	Total.	From United States.		From Great Britain.		From Germany.		From other countries.	
		Value.	Per cent of total.	Value.	Per cent of total.	Value.	Per cent of total.	Value.	Per cent of total.
1913.....	976	77	7.89	660	67.62	150	15.37	189	9.12
1914.....	861	13	1.51	654	75.96	192	22.30	2	.23
1915.....	570	52	9.13	499	87.54	17	2.98	2	.35
1916.....	1,367	192	14.04	1,009	73.81	18	1.32	148	10.83
1917.....	2,712	1,377	50.78	1,090	40.19	.....	.....	245	9.03
1918.....	7,535	6,015	79.83	1,285	17.05	.....	.....	235	3.12
1919 ^a	8,335	5,626	67.50	2,636	31.62	.....	.....	73	.88

¹ All from Belgium.² France, 120,000 yen, or 8.78 per cent.³ China, 100,000 yen, or 3.69 per cent, and Kwantung, 29,000 yen, or 1.07 per cent.⁴ Kwantung, 116,000 yen, or 1.54 per cent; Norway, 19,000 yen, or 0.25 per cent; and Russia, 50,000 yen, or 0.66 per cent.^a Latest year for which figures for countries of origin are available.

Japan purchases only moderate amounts of engines in foreign countries. During the war the value of these imports decreased materially but later the trade revived. Formerly Great Britain and Germany furnished much the greater part of these imports, but since 1916 the United States has been the main source of supply.

Imports of steam turbines and steam, gas, petroleum, and hot-air engines, 1913-1919.

[Values in thousands of yen.]

Imported from—	1913	1914	1915	1916	1917	1918	1919 ¹
United States.....	124	107	63	150	432	1,168	1,712
Great Britain.....	816	340	93	104	233	73	159
Germany.....	609	439	.....	3	42	3	.....
Sweden.....	97	31	85	17	48	15	197
Other countries.....	203	26	.....	168	71	35	274
Total.....	1,849	982	241	442	826	1,244	2,342

PER CENT DISTRIBUTION.

United States.....	6.70	10.90	26.13	33.93	52.30	93.90	73.10
Great Britain.....	44.13	38.70	38.60	23.53	28.21	1.85	6.79
Germany.....	32.94	44.60	.....	.68	5.08	.23	.....
Sweden.....	5.25	3.16	35.27	3.85	5.81	1.21	8.41
Other countries.....	10.98	2.64	.....	38.01	8.60	2.81	11.70
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00

¹ Latest year for which figures for countries of origin are available.

The modernization of industry in Japan has led to the importation of considerable, though not large, amounts of dynamos and other electrical machinery. This trade fell off greatly during the earlier years of the war, but later increased, and in 1919 was in value about 50 per cent above the 1913 figure. Prior to the war the trade was divided among Germany, the United States, and Great Britain, the first two countries supplying somewhat the larger amounts. Later the German imports disappeared, the British decreased, while simultaneously the American portion increased until in 1918 this country had practically a monopoly of the trade. The next year, however, the American proportion decreased appreciably.

Imports of dynamos, electric motors, transformers, converters, and armatures, 1913-1919.

[Values in thousands of yen.]

Year.	Total.	From United States.		From Great Britain.		From Germany.		From other countries.	
		Value.	Per cent of total.	Value.	Per cent of total.	Value.	Per cent of total.	Value.	Per cent of total.
1913.....	4,290	1,706	39.77	1,035	24.13	1,460	34.03	89	2.07
1914.....	2,843	1,211	42.60	667	23.46	809	28.46	156	5.48
1915.....	750	390	52.00	316	42.14	32	4.26	12	1.60
1916.....	894	467	55.99	241	28.90	18	2.16	108	12.95
1917.....	1,714	1,567	91.43	93	5.42	2	.12	52	3.03
1918.....	3,547	3,460	97.55	38	1.07	.....	.....	49	1.38
1919 ¹	6,081	5,194	85.42	187	3.08	.....	.....	700	11.50

¹ Latest year for which figures for countries of origin are available.² Includes Sweden 491,000 yen, or 8.07 per cent.

The sewing-machine trade of Japan has for years been controlled by the United States, and this country has regularly furnished two-thirds or more of the total imports. Great Britain and Germany have also supplied small amounts, the imports from the former coun-

try being unusually large at times during the war. Since the armistice, and as late as 1919, the United States has been practically the sole source of supply. After the war the trade increased greatly, and in 1919 was about 465 per cent greater than in 1913 when values alone are considered.

Imports of sewing machines and parts, 1913-1919.

[Values in thousands of yen.]

Year.	Total.	From Great Britain.		From United States.		From other countries.	
		Value.	Per cent of total.	Value.	Per cent of total.	Value.	Per cent of total.
1913.....	878	53	6.04	673	76.65	152	17.31
1914.....	310	30	9.68	266	85.80	14	4.52
1915.....	278	99	35.60	179	64.40	.....	.....
1916.....	848	173	20.40	674	79.49	1	.11
1917.....	1,068	41	3.84	1,027	96.16	.....	.....
1918.....	3,089	12	.39	3,073	99.48	4	.13
1919 ¹	4,976	86	1.73	4,887	98.21	3	.06

¹ Latest year for which figures for countries of origin are available.

² Germany, 32,000 yen, or 3.64 per cent.

³ Germany, 12,000 yen or 3.87 per cent.

The preceding tables indicate the shifting of the machinery and engine trade to the United States since 1913. In 1918 United States furnished 80 per cent of the total imports, but since then this proportion has shown a steady decline, though still much above the pre-war figures. Coincident with the recent decline in the American proportion has been the increase in the amount furnished by Great Britain. The absolute value of machinery furnished by the United States has, however, shown a constant increase since 1917, and statistics for the first half of 1921 indicate no decrease in these values.

The export trade in machinery and engines is not large but has been increasing and is rather significant. In 1913 the exports were valued at 2,500,000 yen and in 1920 at 16,700,000 yen, an increase of 560 per cent. The exports go mainly to Oriental countries though recently some small sales have been made in South America.

MISCELLANEOUS ARTICLES.¹

(Group XVII of imports and Group XVI of exports.)

IMPORTS.

Woods, wheat bran, manures, etc.—The imports of the articles classified here as miscellaneous are but a small percentage of the total import trade. Woods, wheat bran, manures, photographic films, rubber manufactures, and packing mats are the chief items in this group.

Sandalwood, ebony, teak, cedar, pine, and aspen are the woods chiefly imported. The bulk of this timber comes from the United States, the imports from America consisting largely of pine and fir

¹ Copra and oil cake which are officially classed in this group are discussed in the preceding group of oils, fats, waxes, etc. Matches are officially included in the chemical group, but are discussed here.

lumber. Japanese building programs and price inflation contributed to the increased valuation of wood importations, which advanced from 2,618,000 yen in 1913 to a maximum of 23,460,000 yen in 1920. Wheat bran, used as a feedstuff, comes mainly from China and Kwantung. Photographic films, which have increased greatly in import values in recent years, come mainly from the United States, though Great Britain, France, and Italy furnish small quantities.

Imports of miscellaneous articles, 1913-1921.

[Values in thousands of yen.]

Year.	Woods.	Packing mats.	Rubber manufactures.	Films.	Wheat bran.	Manures. ¹
1913.....	2,618	639	846	429	1,552	1,969
1914.....	1,491	516	618	433	586	1,598
1915.....	1,367	404	444	370	740	1,005
1916.....	2,308	500	903	585	400	1,069
1917.....	4,940	775	971	769	736	1,591
1918.....	12,271	1,079	1,090	711	3,737	2,096
1919.....	10,890	1,557	1,315	1,447	7,436	5,095
1920.....	23,450	984	1,380	2,814	9,794	21,631
1921 (January-June).....	12,435	503	516	2,078	3,969	3,020
Percentage increase, 1920-1913.....	796	54	63	560	531	998

¹ Excluding oil cake, which is treated with the group on oils, fats, waxes, etc. See p. 90.

EXPORTS.

The articles in the miscellaneous export group are predominantly manufactured goods and in 1920 were valued in excess of 160,000,000 yen, which is over 8 per cent of the total export trade.

Exports of "miscellaneous articles," 1913-1921.

[Values in thousands of yen.]

Article.	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).	Per cent increase or decrease (—) 1920 over 1913.
Matches.....	11,865	11,052	14,717	21,103	24,586	27,743	32,968	28,453	7,002	140
Plaits for hats.....	15,691	14,355	14,132	16,318	18,171	11,990	20,015	21,960	2,748	40
Wood.....	10,043	10,674	9,210	12,318	14,785	17,805	23,996	29,130	7,551	190
Mats and matting for floors (Hanagoza).....	4,054	2,814	2,281	2,863	2,180	3,054	3,204	3,988	620	-2
Bamboo and basket ware.....	2,629	2,104	2,175	3,185	2,290	1,909	3,499	5,084	1,375	93
Umbrellas and parasols:										
European.....	1,831	1,730	1,526	2,186	2,305	3,778	4,333	3,549	1,274	94
Other, and handles.....	692	600	527	814	734	739	872	1,889	283	173
Wood manufactures.....	889	826	1,104	1,854	1,755	2,238	4,354	4,589	1,313	416
Lacquered wares.....	1,134	883	566	1,103	1,049	951	1,824	2,877	535	154
Brushes.....	2,284	2,695	3,872	5,302	6,082	10,601	10,300	9,001	1,969	294
Lamps, lanterns, and parts.....	1,544	1,382	2,394	5,234	8,314	7,166	6,777	8,514	2,278	451
Bags, trunks, etc.....	474	415	437	1,221	1,321	1,929	2,193	2,017	343	325
Fans.....	1,137	778	581	699	591	692	950	1,154	449	1
Toys.....	2,490	2,592	4,533	7,640	8,410	10,190	13,001	21,189	3,331	751
Manures.....	555	769	2,579	4,128	2,310	958	1,272	2,367	220	326

The principal articles in this group are matches, hat braids, wood, brushes, and toys, all of which are considered in succeeding tables.

Matches.—Measured in value, exports of matches in 1919, the peak year, were 178 per cent greater than in 1913. In number of boxes, however, there was a decrease from 44,000,000 gross in 1913 to 41,550,000 gross in 1919, a drop of 6 per cent. In 1920 values were 140 per cent more than in 1913 and quantities 35 per cent less.

Exports of matches, 1913-1921.

[Values in thousands of yen.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
China.....	4,829	4,013	3,749	5,214	4,084	4,103	5,869	3,332	626
Kwantung.....	459	302	550	1,511	644	592	3,198	919	203
Hongkong.....	3,008	2,495	2,635	3,603	3,622	4,540	5,562	4,387	1,597
British India.....	1,974	2,896	5,494	5,792	8,691	8,015	9,710	10,420	2,730
Straits Settlements.....	845	615	703	1,037	1,447	1,897	1,996	1,777	436
Dutch East Indies.....	645	515	543	753	1,816	3,117	2,464	4,631	986
Asiatic Russia.....	10	7	10	1,135	1,318	15	55	(¹)	(¹)
Philippine Islands.....	46	72	91	152	300	526	837	678	266
Siam.....	4	.....	18	125	10	23	155	(¹)	(¹)
United States.....	22	85	326	1,401	1,728	1,382	1,426	102	65
Australia.....	2	4	449	182	274	2,046	245	212	1
Other countries.....	21	48	149	198	652	1,487	1,451	1,995	92
Total.....	11,865	11,052	14,717	21,103	24,586	27,743	32,968	28,453	7,002

PER CENT DISTRIBUTION.

China.....	40.70	33.31	25.47	24.70	16.61	14.79	17.81	11.71	8.94
Kwantung.....	3.87	2.72	3.73	7.16	2.62	2.13	9.70	3.23	2.90
Hongkong.....	25.35	22.58	17.99	17.08	14.73	16.37	16.87	15.42	22.54
British India.....	16.64	26.20	37.33	27.45	35.35	28.89	29.45	36.62	38.99
Straits Settlements.....	7.12	5.57	4.78	4.91	5.89	6.84	6.05	6.25	6.23
Dutch East Indies.....	5.44	4.65	3.69	3.57	7.39	11.21	7.47	16.27	11.08
Asiatic Russia.....	.09	.06	.07	5.38	5.31	.05	.17	.....	.....
Philippine Islands.....	.39	.64	.62	.72	1.22	1.89	2.54	2.33	3.80
Siam.....	.03	.....	.12	.59	.01	.08	.48	.....	.....
United States.....	.19	.75	2.21	6.64	7.03	4.98	4.32	.56	.83
Australia.....	.02	.03	3.06	.85	1.11	7.38	.74	.....	.....
Other countries.....	.16	.49	1.03	.94	2.65	5.36	4.40	7.01	1.32
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Total quantity in thousands of gross.....	44,009	39,523	44,037	41,322	44,160	39,467	41,551	28,415	9,606
Average value per gross of boxes.....	.269	.279	.334	.511	.556	.703	.793	1.00	.728
Per cent matches are of total Japanese export trade.....	1.88	1.87	2.08	1.87	1.53	1.41	1.57	1.46	1.22

¹ Not available.

Per cent.

Decrease in quantity, 1919, compared with 1913.....	6
Increase in value, 1919, compared with 1913.....	178

The quantity of Japanese matches exported has shown a general tendency to decrease, and the industry at present is suffering a severe depression. Most of the trade now goes to British India, the Dutch East Indies, Hongkong, and China. The proportion of match exports which has gone to the United States has varied from 0.19 per cent in 1913 to 7.03 per cent in 1917 and 0.36 per cent in 1920.

Plaits and braids for hats.—These, which were formerly a larger factor in export trade than they are now, are woven from wheat straw, wooden shavings, and hemp fiber. Measured in value, these exports in 1920 were 40 per cent greater than in 1913.

Exports of braids (plaits) for hats, 1913-1921.

[Values in thousands of yen.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).	Percent increase or de- crease (—), 1913- 1920.
Great Britain.....	4,075	4,588	5,215	5,827	8,679	3,976	8,271	9,059	782	122
France.....	2,198	1,204	1,359	1,916	766	1,106	2,043	2,058	126	—6
United States.....	6,769	7,111	7,052	7,870	7,807	5,655	8,592	7,766	1,350	14
Germany.....	1,538	886								
Canada.....	44	79	75	150	133					
Australia.....	189	114	207	222	564	686	335	637	77	237
Other countries.....	878	373	224	333	222	578	773	2,441	413	178
Total.....	15,691	14,355	14,132	16,318	18,171	11,996	20,015	21,961	2,748	40

PER CENT DISTRIBUTION.

Great Britain.....	25.97	31.96	36.90	35.71	47.76	33.13	41.33	41.25	28.45	.....
France.....	14.00	8.39	9.62	11.74	4.22	9.21	10.21	9.37	4.59	.....
United States.....	43.14	49.54	49.90	48.22	42.96	47.13	42.93	35.36	49.13	.....
Germany.....	9.80	6.17								.....
Canada.....	.29	.55	.53	.92	.73					.....
Australia.....	1.20	.79	1.46	1.36	3.10	5.71	1.67	2.90	2.80	.....
Other countries.....	5.60	2.60	1.59	2.05	1.23	4.82	3.86	11.12	15.03	.....
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	.....

The trade in plaits and braids for hats has been very irregular. In 1913 it was valued at 15,690,000 yen; it fell off in 1914 and 1915, increased in 1916 and 1917, reacted in 1918 to 11,996,000, and in 1920 reached a peak of 22,000,000 yen. The data for the first six months of 1921 indicate a radical decline in the value of these exports. Great Britain and the United States take the major portion of these goods, but there have been changes in the other countries of destination. German trade ceased after 1914 and has not since revived. Canada, formerly a small purchaser, discontinued buying in 1918 and the trade with France has been irregular.

Wood.—Japan is a well forested country and exports of wood and manufactures thereof have been of some importance. The following table gives the distribution of these exports during recent years:

Exports of wood, 1913-1921.

[Values in thousands of yen.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).	Per- cent- age in- crease 1913- 1920.
China.....	3,748	4,533	3,124	3,869	3,690	6,968	9,431	11,015	3,280	194
Kwantung.....	1,028	1,120	718	777	1,267	1,840	3,811	3,393	1,095	230
Hongkong.....	90	90	146	72	168	297	597	1,005	533	1,016
British India.....	982	1,290	1,964	2,791	4,942	3,807	2,072	2,112	678	115
Straits Settlements.....	171	296	774	1,535	2,699	1,523	3,610	3,128	621	1,729
Dutch East Indies.....	6	20	166	391	774	1,660	1,036	1,378	227	22,969
Great Britain.....	297	271	822	463	313	189	1,230	1,853	207	524
France.....	186	190	41	22						
United States.....	1,214	875	771	750	37					
Australia.....	495	487	524	1,329	417	1,013	1,195	1,932	85	290
Other countries.....	1,826	1,502	150	289	478	569	1,015	3,315	827	81
Total.....	10,043	10,674	9,210	12,318	14,785	17,805	23,996	29,130	7,551	190

The chief items of wood exports are railway sleepers, shooks, and materials for matches and match boxes. In 1920 exports were valued at 29,130,000 yen, an increase as compared with 1913 of 190 per cent. In 1913 more than 12 per cent of this trade was with the United States, but since then it has decreased and become insignificant, while exports to China, Kwantung, British India, the Straits Settlements, and the Dutch East Indies have increased and now account for the major portion of wood exported. Great Britain's trade has also grown until in 1920 nearly 2,000,000 yen worth was sent to that country.

Brushes.—The total exports of brushes show a large relative increase for the period 1913–1919, but since then the trade has declined, especially during the first half of 1921.

Exports of brushes, 1913–1921.

[Values in thousands of yen.]

	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).
Hairbrushes:									
Great Britain.....	89	176	801	763	95	448	1,250	(¹)	(¹)
United States.....	586	536	505	906	542	590	698	(¹)	(¹)
British America.....	94	69	56	144	44	43	88	(¹)	(¹)
Other countries.....	161	136	163	* 380	* 375	* 509	* 294	(¹)	(¹)
Total.....	930	917	1,525	2,193	1,056	1,590	2,330	2,065	308
Toothbrushes:									
China.....	91	85	103	221	287	263	291	(¹)	(¹)
Great Britain.....	68	203	605	326	144	2,044	1,326	(¹)	(¹)
United States.....	383	552	460	893	2,751	3,808	3,319	(¹)	(¹)
British America.....	77	63	81	117	156	198	166	(¹)	(¹)
Australia.....	36	37	108	132	122	301	121	(¹)	(¹)
Other countries.....	163	126	179	342	* 477	* 1,026	* 1,314	(¹)	(¹)
Total.....	818	1,066	1,536	2,031	3,937	7,640	6,537	5,314	1,101
Other brushes:*									
Nail.....	321	411	393	429	278	283	343	320	197
Clothing.....	148	193	267	280	322	302	335	211	68
All other.....	66	109	151	369	479	785	753	1,092	195
Total.....	535	713	811	1,078	1,089	1,370	1,431	1,623	460
Grand total.....	2,283	2,696	3,872	5,302	6,062	10,600	10,298	9,002	1,869

¹ Details not available.

* Australia, 164,000 yen.

* Australia, 158,000 yen.

* Australia, 298,000 yen.

* Australia, 99,000 yen.

* South American countries, 70,000 yen.

* South American countries, 284,000 yen.

* South American countries, 361,000 yen.

* To all countries.

The exports of brushes in 1920 were 294 per cent greater in value than in 1913. At the present time the greatest trade is in toothbrushes, of which the United States takes the largest amount, followed by Great Britain. Exports to the Far Eastern countries are very small. The exportation of hairbrushes, which go mainly to Great Britain and the United States, rank second to toothbrushes in importance.

Toys.—Toys are exported to the United States, Great Britain, Canada, and Australia, as well as to Oriental countries. This trade has shown a marked growth, in 1920 being more than eight times as great as the 1913 trade.

Exports of toys. 1913-1921.

[Values in thousands of yen.]

Exported to—	1913	1914	1915	1916	1917	1918	1919	1920	1921 (January-June).	Per cent increase or de- crease (—), 1913- 1920.
China.....	229	277	204	398	493	1,050	481	387	196	69
Hongkong.....	178	99	80	144	152	357	134	116	63	—35
British India.....	282	197	511	932	678	1,068	1,035	1,494	182	426
Straits Settlements..	91	73	56	153	182	202	143	132	25	45
Dutch East Indies...	83	65	93	296	280	537	299	238	149	187
Great Britain.....	332	395	1,597	1,319	144	239	1,143	2,390	421	620
United States.....	829	1,034	1,101	2,430	3,790	1,622	5,752	10,813	1,545	1,204
Canada.....	43	46	96	342	389	412	516	1,092	189	2,435
Cape Colony and Natal.....	3	3	10	100	122	607	363	442	21	14,633
Australia.....	74	128	521	895	1,161	1,847	640	1,243	91	1,580
Other countries.....	346	275	264	631	1,019	2,241	2,224	2,854	449	724
Total.....	2,490	2,592	4,533	7,640	8,410	10,190	13,001	21,189	3,331	750

Germany's inability to export toys during the war was a contributing factor to the growth of the industry in Japan and the demand for these articles in the United States, caused by the cessation of the German imports, was filled largely by the Japanese product during the war. The statistics for the first half of 1921 indicate, however, a radical reduction in the total toy exports from Japan, though seasonal demands must be considered in connection with this decline.

IV.

THE TRADE BETWEEN THE UNITED STATES AND JAPAN.

TRADE OF THE UNITED STATES WITH ASIATIC COUNTRIES.

During the World War and immediately afterwards, the trade between the United States and Asiatic countries increased greatly in absolute value and also advanced considerably in relation to the total trade of the United States. The quantities, of course, increased much less than did the values, but even the larger quantities recorded does not necessarily mean that the United States was the ultimate destination of a greater volume of Asiatic products than before the war. The enhanced unit values appearing at this time applied to all commodities to a greater or less degree, regardless of source or character, and consequently would not be an important factor in the relative increase of Asiatic trade. A potent factor in causing the Asiatic trade statistics to increase has been the change in trade routes. These changes have particularly affected the Dutch East Indies and the Straits Settlements, and to a lesser extent British India. Before the war much of the tin, rubber, tobacco, and tea which reached the United States from the Dutch East Indies came by way of Europe. After the disruption of trade routes these commodities came directly, and they consequently appeared in the trade statistics of the country of origin. The same is true to a lesser extent of the specialized products shipped from the Straits Settlements. Before the war a considerable amount of the jute, hides, and skins from British India also came to the United States via Europe, but during the period of hostilities came directly. Practically all the commerce between the United States and Japan has always been direct, and the above factor has not materially affected the statistics of trade between these two countries.

Notwithstanding the tremendous increase in trade with some Asiatic countries, especially as measured by percentages, Japan has been and is the main source of supply for the American imports coming from Asia. Not only does Japan hold first place in this regard, but she increased her lead during the war. Since 1917 the imports from Japan to the United States have been about double those coming from any other Asiatic country. Immediately prior to the war British India was the second most important source for Asiatic imports coming to this country, furnishing about two-thirds as much as Japan. Since 1917, however, British India has lost rank, taking third place for a time and in 1919 falling to fourth place, being exceeded by both China and the Straits Settlements. China has also been an important source of Asiatic imports alternating in recent

years with the Straits Settlements for second and third rank. Imports from the Straits Settlements into the United States increased greatly during the war, and that region has now become the most important source for rubber and tin. The import trade from the Dutch East Indies has increased very notably since 1913, and these islands furnish very considerable quantities of tropical products and tin.

The statistics appearing in the table following indicate the direct trade between the United States and the principal commercial countries of Asia:

Trade of the United States with Asiatic countries.
[Values in thousands of dollars.]

Country.	1913:	1914:	1915:	1916:	1917:	1918:	1918:	1919:	1920:	1921 (January- June).	Per cent of increase or de- crease (—).		
											1913-1917	1913-1920	1919-20
Imported from—													
Japan.....	91,633	107,356	98,888	147,644	208,127	284,845	301,943	409,853	414,579	92,970	127	352	1
China.....	39,011	39,383	40,156	71,655	105,906	116,645	111,057	154,685	192,708	47,266	171	394	24
Kwantung.....	22	290	452	709	6,001	24,056	29,835	15,492	11,514	27,780	27,217	52,240	—
Korea.....	5	8	9	64	331	10	139	335	110	43	5	2,050	65
British India.....	67,949	73,631	51,983	71,746	102,107	105,278	129,688	140,081	176,074	43,046	50	159	25
Straits Settlements.....	35,712	26,308	24,990	82,115	89,985	159,188	150,231	145,982	191,779	24,906	152	437	31
Dutch East Indies.....	4,222	5,334	9,246	27,717	62,011	79,314	74,983	78,744	167,416	21,351	897	2,590	112
Hongkong.....	4,020	3,086	2,045	5,401	7,512	18,086	30,068	22,119	46,860	5,549	87	1,041	107
Asiatic Russia.....	2,357	2,489	882	2,303	4,018	3,650	3,975	6,710	10,655	556	71	352	58
Siam.....	117	147	242	237	109	157	175	224	72,577	20,189	—	288	102
All other Asia.....	29,447	28,921	18,883	27,590	29,140	34,855	21,280	67,340	72,577	20,189	—	146	7
Total.....	276,495	286,952	247,770	437,181	615,217	826,194	853,375	1,041,444	1,283,725	261,673	121	364	23
Philippine Islands.....	21,010	18,162	24,020	28,232	42,436	78,101	85,927	96,289	112,951	23,495	102	437	70
Total import trade.....	1,813,008	1,893,926	1,674,170	2,197,894	2,659,355	2,945,655	3,031,213	3,904,365	5,278,481	1,320,466	47	191	35
Exported to—													
Japan.....	57,742	51,206	41,518	74,471	130,427	267,641	273,775	366,364	377,942	102,767	126	554	3
China.....	21,237	24,699	16,402	25,131	37,196	43,476	52,959	105,540	145,737	90,919	74	583	38
Kwantung.....	1,371	1,473	822	720	4,022	5,642	6,176	12,735	7,139	3,011	561	1,074	44
Korea.....	11,040	10,855	11,696	675	2,083	1,069	1,526	3,333	2,929	1,562	52	113	—
British India.....	3,607	4,185	3,846	19,297	28,396	42,396	40,392	67,506	99,828	37,886	157	804	47
Straits Settlements.....	3,152	3,677	2,772	7,401	7,734	8,810	9,948	12,135	18,639	5,390	114	425	56
Dutch East Indies.....	10,431	10,696	8,185	12,009	21,139	19,778	23,379	46,576	59,018	27,173	571	1,772	26
Hongkong.....	1,101	1,215	23,353	131,112	130,206	34,719	24,665	25,908	25,908	9,613	36	1,448	17
Asiatic Russia.....	4,193	3,318	4,068	2,434	1,129	1,148	1,577	52,176	13,281	9,489	11,726	1,105	75
Siam.....	115,057	113,426	114,470	278,611	380,250	447,429	445,501	701,165	771,749	259,160	—	1,233	18
All other Asia.....	25,365	27,305	24,755	23,421	27,207	48,425	52,976	70,552	99,830	28,852	7	263	41
Total.....	2,465,884	2,364,579	2,768,569	4,333,463	6,290,048	5,919,711	6,149,088	7,920,426	8,228,016	2,533,717	155	233	4

¹ Source: Commerce and Navigation.

² Fiscal year ending June 30.

³ Calendar year.

⁴ The imports from the Dutch East Indies in 1913 were unusually small. The average annual imports from these islands for the four years 1909-1912 were \$14,345,000.

Correspondingly, Japan affords a larger market for the United States exports than any other Asiatic country, and in the more recent years the relative importance of this market for the United States has increased slightly. If the trade of Asiatic Russia, largely a war product, be excluded, during the last few years Japan has taken, with an occasional exception, from three to five times as much of the American exports as has any other Asiatic country. China has been the second largest market for the United States exports in this region according to official statistics, though falling far below Japan in this respect. However, a certain part of the United States exports to Japan is reexported and finds an ultimate market in China or other Oriental country.

British India is also an important Asiatic market for American exports, though the value of the goods sent to that country is considerably less than the value of those exported to China. The export trade to Asiatic Russia grew enormously during the early years of the war, and in 1916 that country was the largest Asiatic market for American exports. This trade has, however, declined, but is still much above the pre-war status. The Dutch East Indies and Hong-kong also take a considerable quantity of American exports, but the export trade to the former has not increased as has the import trade from those islands.

GENERAL SURVEY OF THE TRADE BETWEEN THE UNITED STATES AND JAPAN.

The foreign trade of both the United States and Japan has made very material progress during the last quarter of a century. In 1897 Japan's total foreign trade amounted to \$190,400,000 and in 1920 to over \$2,000,000,000, the trade of the latter year being about eleven and one-half times what it was in 1897. The foreign commerce of the United States has increased during the same period from \$1,800,000,000 to \$13,500,000,000, the latter figures being about seven and one-half times those of 1897. The tables following show the trade of Japan and United States since 1900 by seven-year periods and also the commerce of the two countries for certain years since 1897:

TOTAL FOREIGN TRADE OF JAPAN AND OF THE UNITED STATES.

Average annual trade, seven-year periods, 1900-1920.

[In thousands.]

Period.	Japan.			United States.	
	Yen.	Dollars. ¹	Per cent of increase over preceding period.	Dollars.	Per cent of increase over preceding period.
1900-1906.....	639,966	318,703	.....	2,477,811	.....
1907-1913.....	991,437	493,764	51.63	3,480,039	40.45
1914-1920.....	2,733,922	1,361,493	175.74	8,384,803	140.94

¹ Converted at the par value (1 yen=\$0.498).

Trade of Japan and of the United States for selected years.[Values in thousands of dollars.¹]

Year.	Total trade.		Imports.		Exports.	
	Value.	Per cent of 1913 trade.	Value.	Per cent of 1913 imports.	Value.	Per cent of 1913 exports.
Trade of Japan:²						
1897.....	190,453	28	109,212	30	81,241	26
1907.....	461,586	68	246,245	68	215,341	68
1911.....	478,697	71	255,875	70	222,822	71
1913.....	678,222	100	363,257	100	314,965	100
1917.....	1,314,130	194	515,834	142	798,296	253
1918.....	1,807,862	267	830,736	229	977,126	310
1919.....	2,127,622	314	1,082,383	298	1,045,239	332
1920.....	2,133,716	315	1,163,415	320	970,301	308
1921 (January-June).....	683,625	.....	397,847	.....	286,778	.....
Trade of United States:						
1897.....	1,815,724	42	764,730	42	1,050,994	43
1907.....	3,315,272	77	1,434,421	79	1,880,851	76
1911.....	3,576,546	84	1,527,226	84	2,049,320	83
1913.....	4,278,892	100	1,813,008	100	2,465,884	100
1917.....	8,949,403	209	2,659,355	146	6,290,048	255
1918.....	8,865,366	207	2,945,655	162	5,919,711	240
1919.....	9,190,300	214	3,031,213	167	6,149,087	249
1920.....	11,824,791	276	3,904,365	215	7,920,426	321
1920.....	13,506,497	315	5,278,481	291	8,228,016	333
1921 (January-June).....	3,784,075	.....	1,320,568	.....	2,463,507	.....

¹ The Japanese yen has been converted into United States dollars at the par value (1 yen=\$0.48).² Fiscal year ending June 30.³ Calendar years.

It is obvious that both countries have had an enormous increase in their trade since 1913, the Japanese showing the larger relative increase when considered on the period basis. The average annual value of the Japanese foreign trade during the period 1914-1920 nearly tripled as compared with similar figures for the preceding period, while that of the United States increased about two and one-third times. When the statistics for 1913, however, are compared with those for 1920 it will be seen that the percentage for both countries is the same.

RELATIVE POSITION OF JAPAN AND THE UNITED STATES IN THE FOREIGN TRADE OF THE OTHER.

For many years Japan has carried on more trade with the United States than with any other country and beginning with 1917 about one-third or more of Japan's foreign commerce has been with the United States. This trade between the two countries was earlier due primarily to the heavy exports sent from Japan to the United States but later the large import trade also helped to swell the total.

The place of Japan in the total foreign trade of the United States is by no means as important as is the United States in the Japanese foreign trade. The tables following show the trade between the United States and Japan since 1911.

Trade of United States with Japan, 1911-1921.¹

[Thousands of dollars.]

	Total trade of United States.	Trade of United States with Japan.	Per-centage trade with Japan is of total United States trade.	Total exports from United States.	United States exports to Japan.	Per-centage exports to Japan are of total United States ex-ports.	Total imports into United States.	United States imports from Japan.	Per-centage imports from Japan are of total United States im-ports.
1911 ²	3,576,546	115,249	3.22	2,049,320	36,721	1.79	1,527,226	78,527	5.14
1912 ²	3,857,587	134,086	3.47	2,204,322	53,478	2.41	1,653,265	80,607	4.88
1913 ²	4,278,892	149,375	3.49	2,465,884	57,742	2.34	1,813,008	91,633	5.06
1914 ²	4,258,505	158,561	3.72	2,364,579	51,206	2.17	1,893,928	107,356	5.66
1915 ²	4,442,759	140,400	3.16	2,768,589	41,518	1.50	1,674,170	98,883	5.91
1916 ²	6,531,367	222,115	3.40	4,333,483	74,471	1.72	2,197,894	147,644	6.72
1917 ²	8,949,403	338,554	3.78	6,290,048	130,427	2.07	2,659,355	208,127	7.83
1918 ²	8,885,366	552,586	6.23	5,919,711	267,641	4.52	2,945,655	284,945	9.67
1918 ²	9,180,300	675,718	6.27	6,149,087	273,725	4.45	3,031,213	301,943	9.96
1919 ²	11,821,791	776,217	6.56	7,920,426	366,364	4.63	3,904,365	409,853	10.50
1920 ²	13,506,497	792,521	5.13	8,228,016	377,942	4.59	5,278,481	414,579	7.85
1921 (January-June)	3,784,075	200,757	5.30	2,463,507	102,787	4.17	1,320,568	97,970	7.42

¹ Commerce and Navigation.² Year ending June 30.³ Calendar year.*Japan's trade with the United States, 1913-1921.*

[Values in thousands of yen.]

Year.	Imports from United States.		Exports to United States.	
	Value.	Per cent of total Japanese imports.	Value.	Per cent of total Japanese exports.
1911	81,251	15.81	142,726	31.90
1912	127,016	20.53	168,709	32.01
1913	122,408	16.78	184,473	29.17
1914	96,771	16.24	196,539	33.25
1915	102,534	19.26	204,142	28.62
1916	204,079	26.98	340,245	30.18
1917	359,708	34.73	478,537	29.85
1918	626,026	37.53	530,129	27.01
1919	766,381	35.25	828,098	39.45
1920	873,177	37.37	565,018	29.02
1921 (January-June)	289,775	36.27	204,998	35.72

Increase in Japan's imports from the United States: 1913-1917, 194 per cent; 1913-1920, 613 per cent
 Increase in Japan's exports to the United States: 1913-1917, 159 per cent; 1913-1920, 206 per cent.

From 1913 to 1917 the proportion which the Japanese trade formed of the total United States foreign commerce remained rather stationary, though showing some small and rather consistent tendency to increase. In other words, during this period the American trade with Japan grew at about the same rate as that with the world at large. In 1911 the Japanese trade constituted 3.2 per cent of the total United States foreign commerce. In 1917 this figure had increased to 3.8. The percentages which the United States trade formed of the total Japanese commerce during the period are as follows: 1911, 33.7 per cent; 1913, 22.5 per cent; 1915, 24.7 per cent; 1916, 28.9 per cent; 1917, 31.7 per cent.¹

¹ For tables and details see page 26 *et seq.*

After the United States became a belligerent in 1917 the Japanese trade formed a larger proportion of the total American commerce than it did before. The percentages for 1918 and 1919 are respectively 6.2 and 6.5, the latter figure representing the maximum year. The corresponding figures for the share of the United States trade in the total Japanese commerce are 31.8 and 37.3. After conditions become somewhat more normal the proportion which the Japanese trade formed of the total foreign commerce of the United States fell somewhat, the percentages for 1920 and the first half of 1921 being, respectively, 5.1 and 5.3. These figures are, however, well above the pre-war percentages. During these two years the American trade constituted 33.5 per cent and 36.3 per cent of the total Japanese foreign commerce. At no time has the trade with Japan equaled 7 per cent of the total United States foreign commerce, as compared with the maximum of 37.3 per cent, which the American trade formed of the Japanese foreign commerce in 1919. Beginning with 1917 and continuing to the present the trade between the United States and Japan has more than equaled that between Japan and any other two countries.

The import statistics of the two countries also show the importance of the United States in the Japanese trade. Prior to 1916 the Japanese imports into the United States formed about 5 per cent of the total imports into this country, the exact figures varying somewhat, though not radically, from year to year. During this time the American imports into Japan formed about one-sixth of the total imports of that country. After the United States became a belligerent the relative amount of imports from Japan increased somewhat, the percentages for 1917 and 1918 being respectively 7.8 and 9.6. The maximum figure, 10.5 per cent, was reached in 1919. Since then there has been a relative decrease, the percentage for 1920 being 7.8 and for the first half of 1921, 7.4. The percentage which the American imports formed of the total imports of Japan for these years is as follows: 1916, 26.9; 1917, 34.7; 1918, 37.5; 1919, 35.2; 1920, 37.3; 1921 (first six months), 36.2. The largest proportion which the Japanese imports have formed of the total American imports was 10.5 per cent in 1919; the largest proportion which the American imports have formed of the total Japanese imports was in 1920, when they made up 37.3 per cent of the total. Since 1917 the imports from the United States have more than equaled those coming from any other two countries.

The importance of the United States in the trade of Japan is still further emphasized by export statistics of the two countries. As mentioned before, the United States has always been Japan's largest market for her exports. Prior to the war the United States received, in round numbers, about one-third of Japan's total exports, while the exports to Japan from the United States formed only a small part of the total exports of the latter country, constituting, prior to the war, about 2 per cent of the total export trade. After 1917 the proportion which the Japanese exports formed of the total exports to the United States increased somewhat, being about 4.5 per cent. This represents, approximately, the proportion in June, 1921. The percentages which the exports to the United States have formed of the total exports of Japan for the years 1917 to 1920 and the first half of 1921 are, respec-

tively: 29.8; 27; 39.4; 29; and 35.7. The relative proportion which the exports to Japan constitute of the total American exports reached a maximum in 1919, with a percentage of 4.6; the exports to the United States formed the largest proportion of the total Japanese exports in the same year, the percentage being 39.4. For a considerable number of years the exports to the United States from Japan have usually equaled or exceeded those to any other two countries.

TRADE WITH THE UNITED STATES, BY COMMODITIES.

CHIEF COMMODITIES.

Imports.—Because of the methods used in the official classification, it is impossible to make exact statements regarding the proportion which certain general classes of commodities form of the total imports. This is especially true of iron and steel, as the imports officially classified under this heading do not include all the iron and steel products imported, since engines and machinery are obviously of this class, as are also some of the articles classified as construction materials. However, because of the confusion likely to follow any attempt at rearrangement it seems best to follow the official classification throughout this survey.

A very limited number of commodities or classes of commodities constitute the greater part of the United States imports into Japan. Since 1913 the imports of cotton, combined with those of iron and steel, constitute from 58 to 70 per cent of the total. If to these be added construction material, machinery, and petroleum, from 69 to 89 per cent will be accounted for. The following table indicates what these principal commodities are, the absolute values, and the percentages which each forms of the total imports:

Japan's principal imports from the United States, 1907, 1911, and 1913-1921.

[Values in thousands of yen.]

Year.	Ginned cotton.		Iron and steel, raw, partly or wholly fabricated.		Construction materials.	
	Value.	Per cent of total imports from United States.	Value.	Per cent of total imports from United States.	Value.	Per cent of total imports from United States.
1907.....	28,723	35.60	4,167	5.17	2,367	2.93
1911.....	29,259	36.12	5,668	6.98	3,220	3.96
1913.....	61,220	52.46	6,779	5.51	1,922	1.57
1914.....	53,966	55.77	4,851	5.01	1,115	1.15
1915.....	55,651	54.28	13,403	13.07	678	.66
1916.....	79,370	38.89	49,201	21.11	799	.39
1917.....	81,085	23.38	166,979	46.42	9,317	2.59
1918.....	205,108	32.76	219,700	35.10	16,417	2.62
1919.....	285,112	37.33	159,498	20.81	21,242	3.16
1920.....	339,161	38.81	76,701	20.21	22,828	2.61
1921 (January-June).....	100,103	34.55	67,693	23.36	12,638	4.36

Japan's principal imports from the United States, etc.—Continued.

Year.	Machines and engines.		Petroleum (kerosene).	
	Value.	Per cent of total imports from United States.	Value.	Per cent of total imports from United States.
1907.....	8,294	10.28	9,507	11.75
1911.....	6,314	7.78	9,011	11.09
1913.....	9,056	7.40	7,577	6.19
1914.....	5,035	5.20	6,402	6.62
1915.....	2,940	2.87	6,695	6.53
1916.....	7,880	3.86	4,983	2.44
1917.....	17,033	4.73	4,904	1.36
1918.....	46,753	7.47	7,387	1.18
1919.....	66,866	8.73	18,427	2.46
1920.....	73,536	8.42	19,085	2.19
1921 (January-June).....	39,418	13.60	5,315	1.88

Raw cotton stands out preeminently as the most important import into Japan from the United States and with two exceptions has for years consistently held first place. This one article constitutes from one-third to one-half of the total imports from the United States. Immediately prior to and during the earlier part of the war, cotton formed over 50 per cent of the total, but later this percentage declined somewhat, though it still constitutes more than one-third of the total.

Iron and steel, as officially classified, have become an increasingly important item in the import schedule. Prior to the war Great Britain supplied the greater part of these imports, and those from the United States formed only about 5 per cent of the total imports of this type. During the war this trade grew immensely, the peak being reached in 1917, when these commodities constituted 46 per cent of the total imports from the United States and in both 1917 and 1918 superseded cotton as the most important import. The proportion which this trade forms of the total has declined since 1918, but these commodities in June, 1921, formed about 23 per cent of the total imports from the United States.

Machinery and engines immediately prior to the war formed about 6 or 7 per cent of the total imports from the United States. The war at first had a depressing tendency on this trade both relatively and absolutely, but later it revived. The proportional increase is particularly noticeable in the first six months of 1921, when the peak of 14 per cent was reached.

Petroleum was also an important item in the imports from the United States. The trade in this commodity declined from 12 per cent of the total imports in 1907 to 1 per cent in 1918. Since then it has increased somewhat, but at present it is much below the pre-war level. This relative decrease has been due largely to the fact that the Japanese imports of petroleum from all countries have declined greatly, rather than that the source of supply has been changed. Japan also imports considerable amounts of construction material from the United States. These imports declined greatly during the war, becoming negligible in 1916. Later the trade revived and on a relative basis reached the maximum in the first half of 1921, when the imports represented over 4 per cent of the total.

Exports.—Although a limited number of articles constitute the greater part of imports into Japan from the United States, a still smaller number make up the bulk of the exports from the former country. A single article, raw silk, constitutes from 60 to 75 per cent of the total exports from Japan to the United States. If to this one item of raw silk be added the exports of other forms of silk, from 67 to 86 per cent of the total exports to the United States are accounted for. The exports of silk tissue, made up principally of habutae, have been increasing recently both relatively and absolutely, and during the first half of 1921 reached a maximum of 11 per cent of the total. Waste silk forms but a small part of the silk exports.

The value of the tea sent from Japan to the United States, when considered on an absolute basis, has increased materially, but has declined relatively.

Beans and peas made up an appreciable part of the export trade during the war, and formed in 1918, the maximum year, nearly 7 per cent of the total. The value of these exports before the war was not large and has declined greatly since the close of hostilities, though still well above the pre-war amount.

Vegetable oils also were exported to the United States during the war in relatively large quantities. This trade was small before 1914, has recently declined very seriously, and seems to have been largely a war development.

Japan's chief exports to the United States, 1907, 1911, 1913, and 1915-1921.

[Values in thousands of yen.]

Year.	Raw silk.		Silk tissues.		Waste silk.	
	Value.	Per cent of total exports to United States.	Value.	Per cent of total exports to United States.	Value.	Per cent of total exports to United States.
1907.....	79,760	60.84	8,088	6.17	210	0.16
1911.....	89,889	62.98	3,450	2.42	395	.28
1913.....	125,909	68.26	5,183	2.81	1,003	.54
1915.....	127,349	62.38	8,610	4.22	1,477	.72
1916.....	224,093	65.86	14,197	4.17	2,572	.75
1917.....	306,170	63.98	19,484	4.07	4,667	.97
1918.....	318,673	60.10	20,546	3.87	14,446	2.72
1919.....	600,843	72.56	62,072	7.49	10,169	1.22
1920.....	341,599	60.46	41,818	7.40	9,399	1.66
1921 (January-June).....	153,838	75.04	21,874	10.67	1,130	.55

Year.	Tea.		Beans and peas.		Vegetable oils.	
	Value.	Per cent of total exports to United States.	Value.	Per cent of total exports to United States.	Value.	Per cent of total exports to United States.
1907.....	10,861	8.28	.....	.....	4	.....
1911.....	13,331	9.34	704	0.49	21	0.01
1913.....	8,848	4.80	556	.30	106	.06
1915.....	13,186	6.46	1,358	.66	415	.20
1916.....	13,308	3.91	4,520	1.33	2,722	.80
1917.....	18,797	3.93	19,950	4.17	9,093	1.90
1918.....	19,315	3.64	36,296	6.84	20,111	3.79
1919.....	15,661	1.89	17,932	2.16	6,111	.74
1920.....	14,285	2.53	(1)	.....	7,225	1.28
1921 (January-June).....	836	.41	(1)	.....	239	.12

¹ Not separately listed.

TRADE WITH THE UNITED STATES BY CLASSES OF COMMODITIES.

GRAINS, FLOURS, STARCHES, ETC.

(Group II of imports and Group I of exports.)

Rice.—In this group, rice, until recently, constituted the largest item exported from Japan to the United States. At the beginning of the war continental United States was Japan's second largest export market for this article, Hawaii holding first place. While the value of the amounts sent the United States increased until after 1917, the percentages of the total showed a decline with the beginning of the war. In 1913 the United States took one-third of all the rice exported by Japan, the American portion being valued at 1,400,000 yen. In 1917 the exports were valued at 3,100,000 yen but represented only 22 per cent of the total. After this year the exports to the United States decreased quite rapidly, both relatively and absolutely, and in 1920 became negligible.

Beans and peas.—The various kinds of peas and beans combined form by far the largest item in the export trade of Japan to the United States of this group in recent years. In 1913 the total Japanese exports of these articles were valued at 1,350,000 yen and the United States afforded the largest market for them. In that year the exports to the United States were valued at 556,000 yen and represented 41 per cent of the total.

Exports of beans and peas and groundnuts, 1913, 1915–1921.

[Values in thousands of yen.]

	Beans and peas.		Groundnuts.	
	Total.	To United States.	Total.	To United States.
1913.....	1,351	556	939	777
1915.....	8,124	1,358	919	796
1916.....	14,854	4,521	1,296	1,097
1917.....	31,790	19,951	1,835	1,559
1918.....	53,255	36,359	2,626	2,114
1919.....	29,921	17,936	2,054	1,690
1920.....	8,514	(1)	2,101	(1)
1921 (January–June).....	1,354	(1)	130	(1)

¹ Unavailable. Exports of peas and beans, including groundnuts, to the United States, in 1920, were valued at 6,673,000 yen, and in 1921 (January–June), at 227,000 yen.

Immediately after the outbreak of hostilities the absolute value of the amounts sent to the United States increased, but the proportion decreased. In 1917 there began an appreciable advance which reached a maximum in 1918 when the exports sent to the United States were valued at 36,000,000 yen, representing 68 per cent of the total. In 1919 there was a big decline in the total exports, the United States taking 60 per cent, representing about 18,000,000 yen in value. This rapid decline in the exports continued during 1920 and the first half of 1921.

Groundnuts.—Japan exports appreciable amounts of groundnuts and the United States is the principal market for them. The total exports in 1913 were 99,000 piculs, valued at 939,000 yen. Of this

amount the United States received 81,000 piculs, valued at 777,000 yen. The maximum value of exports was reached in 1918 with a total of 2,500,000 yen, and this year the value of exports to the United States was 2,100,000 yen. The total value of this trade showed but a small decline in 1919 and 1920.

Starch.—Imports of starch into the United States have grown greatly since 1913, increasing from \$458,000 in that year to a maximum of \$2,100,000 in 1918. Prior to the war Germany and the Netherlands furnished most of this, but after the beginning of hostilities the supplies from these sources were greatly reduced or entirely eliminated. The Japanese statistics are defective regarding the movement of this commodity, but, according to the United States official figures, in 1913 Japan sent about \$2,000 worth of starch to this country, or less than one-half of 1 per cent of the total. Since that time the Japanese exports have increased immensely and in the calendar year 1918, the maximum year, the United States received from Japan starch to the value of \$1,975,000, or 93 per cent of the total starch imports. Since 1918 both the total imports and the amounts supplied by Japan have decreased, but in 1920 of the total United States imports of \$1,016,000 Japan supplied 88 per cent valued at \$886,000. During the war starch was used in the making of explosives, and in peace time much the greater part is used in the textile industry, relatively small amounts being utilized for food purposes.

United States imports of starch.

Year.	Total.	From Japan.	Year.	Total.	From Japan.
1913.....	\$457,784	\$2,132	1918.....	\$1,673,477	\$1,494,131
1915.....	243,805	2,643	1918 ¹	2,108,260	1,975,261
1916.....	123,838	23,643	1919.....	242,909	101,654
1917.....	973,530	798,775	1920.....	1,016,796	885,844

¹ Source: Commerce and Navigation.

² These and succeeding figures are for calendar years. Preceding figures are for fiscal years.

Wheat.—Immediately prior to the war Japan obtained 75 per cent of her total wheat imports from the United States; in 1913 the imports were valued at 12,300,000 yen and the portion from the United States represented 9,500,000 yen. Following the outbreak of the war the American imports declined rapidly. Since 1916 the United States has sent practically no wheat at all to Japan, that country now relying upon China and Australia for practically all of her imported supply of this commodity, though before the war less than one-fourth came from those sources. The cessation of wheat imports from the United States was caused by the insistent war demands of the European market coupled with the shorter Atlantic haul. Also, the American wheat became expensive, and this logically curtailed the Japanese demand.

Wheat flour.—Prior to the war Japan imported modest quantities of wheat flour, and up to 1915 about 90 per cent of the imports came from the United States. After that year the American imports declined rapidly and became insignificant. In 1920, however, according to the United States official statistics, there were relatively very large amounts again sent from the United States to Japan. The causes for the decline of wheat-flour imports are similar to those which affected

wheat. The American flour was used largely to blend with the coarser product from Manchuria. Later, the Australian product to some extent filled the purpose for which the American imports were formerly used, and also the Manchurian flour was used unblended. During the war the Japanese expanded their milling facilities and carried on a considerable flour trade with Oriental countries. This trade has, however, suffered a serious depression since 1919.

BEVERAGES, COMESTIBLES, AND TOBACCO.

(Group III of imports and Group II of exports.)

Tea.—The most important market for Japanese green tea is the United States, and small amounts of black tea are also sent to this country. For a considerable period of time the United States has afforded a market for from 80 to 85 per cent of the total tea exports of Japan. Since 1919 the proportion has declined somewhat relatively, reaching a minimum in the first half of 1921. Practically all the remainder is marketed in Canada, that country receiving from 10 to 15 per cent of the total tea exports.

Exports of tea, 1913 and 1917-1921.

[Values in thousands of yen.]

Year.	Total.	To the United States.		Year.	Total.	To the United States.	
		Value.	Per cent of total.			Value.	Per cent of total.
1913.....	10,076	8,848	87.81	1919.....	18,402	15,661	85.10
1917.....	21,756	18,797	86.40	1920.....	17,112	14,285	83.48
1918.....	23,056	19,315	83.68	1921 (January-June) ..	1,052	836	79.47

Alcoholic liquors.—In recent years the United States has been sending considerable quantities of alcoholic liquors to Japan. Much the largest part of these imports consist of wine and this trade has grown rapidly since 1916. In 1919 the wine sent to Japan from the United States was valued at 1,700,000 yen and represented 73 per cent of the total imports of this article into Japan. This trade more recently has been regulated by the United States Government and has practically disappeared.

Tobacco.—Prior to 1919 the United States supplied Japan with about 90 per cent of her imports of leaf tobacco. In 1918 the imports of this article from the United States were valued at 1,600,000 yen and in 1919 at 2,200,000 yen. In the latter year, however, the proportion which this country supplied of the total was but 42 per cent.

Other food products.—Japan imports considerable condensed milk, nearly all of it coming from the United States. The trade has grown since 1916 and in 1919 the imports from this country were valued at 1,900,000 yen. In recent years Japan has sent appreciable quantities of rape and mustard seed to the United States. The exports of dried codfish from Japan to the United States have increased greatly on a relative basis, and in 1918 were valued at 620,000 yen. Canned and bottled goods were exported from Japan to the United States to the value of 4,300,000 yen in 1920. The largest item in this group is that

of tinned crabs. This country is also the largest market for the Japanese exports of soy.

In the table below will be found certain statistics regarding the trade in canned foodstuffs:

Exports of comestibles in containers, 1913, and 1917-1921.

[Values in thousands of yen.]

Year.	Total.	To United States.	To Great Britain.	Year.	Total.	To United States.	To Great Britain.
1913.....	3,321	1,698	473	1919.....	9,182	3,842	3,650
1917.....	7,330	2,516	2,605	1920.....	7,945	4,298	845
1918.....	9,633	2,374	3,463	1921 (January-June)...	1,935	796	236

SKINS, HAIR, BONES, TEETH, ETC.

(Group IV of imports and Group III of exports.)

Japan imports modest quantities of hides and skins from the United States. This trade did not increase greatly during the war period when considered on an absolute basis and lost ground relatively. In 1913 imports from the United States were valued at 517,000 yen; in 1916 at 891,000 yen, and in 1918 at 258,000 yen. In 1920 there was an unusually heavy import, valued at 1,558,000 yen, followed by a large decline in the first half of 1921. In 1913, 20 per cent of the total of these imports came from the United States; in 1918, 2 per cent; in 1920, 8 per cent.

Japan relies upon the United States for a very considerable part of her leather imports. The quantities of these American imports decreased during the war but later increased, reaching a maximum in 1920. A considerable part of the imports consist of sole leather. The trade during the past eight years is illustrated by the following table:

Imports of leather, 1913-1921.

[Quantities in thousands of kin; values in thousands of yen.]

Year.	Total.		From United States.			
	Quantity.	Value.	Quantity.	Value	Per cent of total quantity.	Per cent of total value.
1913.....	2,114	2,344	1,241	1,185	58.70	50.55
1914.....	1,389	1,946	624	795	47.31	40.85
1915.....	1,413	1,908	601	764	42.53	40.04
1916.....	1,781	2,789	780	1,102	43.80	39.51
1917.....	934	2,162	295	807	31.58	37.33
1918.....	1,534	3,527	886	2,182	57.77	61.87
1919.....	2,007	5,388	1,393	3,399	69.42	63.09
1920.....	3,609	8,187	2,822	5,684	78.20	69.43
1921 (January-June).....	1,825	3,776	1,135	2,229	62.20	59.04

Japan exports a considerable amount of furs to the United States, these being valued at 1,076,000 yen in the peak year of 1919. Formerly Japan exported relatively large quantities of catgut to the United States, but recently this trade has been very small.

OILS, FATS, WAXES, ETC.

(Group V of imports and Group IV of exports.)

Japan has always imported considerable quantities of kerosene, but this trade has been declining, both relatively and absolutely. In 1913 48,000,000 gallons, valued at 11,000,000 yen, were imported, and the United States supplied 68 per cent of the total. The trade then declined to a minimum of 19,000,000 gallons, valued at 5,300,000 yen, in 1917. After the cessation of hostilities the imports increased to 37,000,000 gallons, valued at 22,000,000 yen, in 1919, and then again fell off. The United States has consistently furnished about 70 to 90 per cent of the total imports, and practically all of the remainder comes from the Dutch East Indies. The proportion which the United States supplied of the total has shown a tendency to increase since 1913. The decrease in the imports of kerosene have been partly due to the fact that the Japanese have some home production and also to the development of hydroelectric power, thus reducing the amount of kerosene products which were formerly consumed.

Japan imports very considerable quantities of paraffin from the United States. This trade has increased from 730,000 yen in 1913 to over 2,000,000 yen in 1920, though the statistics for the first half of 1921 indicate a later material decrease in the imports from this country. Most of the paraffin brought from the United States is of the cruder form.

Recently Japan has been exporting considerable quantities of rapeseed oil to the United States, this trade growing from 37,000 yen in 1913 to a maximum of over 6,000,000 yen in 1918. The exports to the United States in 1919 were valued at 1,900,000 yen, and according to United States statistics this trade did not suffer much of a decline in the next year.

The exports of soya bean oil to the United States from Japan increased materially during the war period. In 1913 exports of this oil to the United States, according to the Japanese figures, were valued at 69,000 yen only and in 1918 at 1,200,000 yen. Since that year the exports have declined very materially. The United States has been the principal market for the Japanese exports of this commodity. During the war period a trade in coconut oil also developed. Prior to 1917 little or none of this was sent from Japan to the United States, but in 1918 the exports were valued at 12,500,000 yen. This was essentially a war trade, and more recently the exports have declined greatly and are now negligible.

During the later years of the war and the period immediately following the armistice the Japanese exported considerable fish and whale oil to the United States. In 1918 these exports to the United States were valued at 2,640,000 yen, but later the trade declined greatly.

DRUGS, CHEMICALS, MEDICINES, ETC.

(Group VI of imports and Group V of exports.)

There has been a very considerable shifting of the trade in this group. In 1919 Japan secured from the United States sulphate of ammonia to the value of 17,000,000 yen. Previous to this year the

United States had exported practically none of this commodity to Japan and sent only very small amounts in the first half of 1921. Prior to the war Great Britain supplied practically all the imports of caustic soda. Shortly after the outbreak of hostilities the United States began to participate in this trade. Of the total import trade of this article the United States supplied, in 1913, 1 per cent; in 1915, 30 per cent; in 1917, 99 per cent; and in 1919, the latest available statistics, 77 per cent. The value of the imports from the United States in the maximum year, 1917, was 6,300,000 yen. The same trend appears in the soda ash trade. Great Britain was formerly practically the only source of supply, but in 1918 the United States furnished nearly 75 per cent of the total, valued at 8,342,000 yen. Since that year this trade has been about equally divided between Great Britain and the United States.

The United States has always been the chief source of supply for the resin imported into Japan. The trade increased during the war and in 1919 the American imports were valued at 2,400,000 yen. This country was formerly the chief source of supply for the Japanese imports of tanning materials but has more recently been superseded in this respect by the South African Union. In 1919 the total value of the imports of these materials was 2,000,000 yen.

The United States has displaced Germany as the chief source of supply for the following articles: Boric acid, salicylic acid, milk sugar, cocaine, and dynamite. Similarly, the United States has displaced Great Britain as the main source of supply for the following articles: Caustic soda, borate of soda, sulphate of ammonia, glycerine, and morphine. With the exception of caustic soda, sulphate of ammonia, morphine, and cocaine the values of each of the imports mentioned above is small.

Japan is the main source for the world's supply of menthol, and it is estimated that about 90 per cent of the amount consumed in the United States is imported from that country. The value of the Japanese exports of this commodity to the United States in 1919, the maximum year, was 1,600,000 yen. Japan is the principal source of supply for the camphor brought into the United States, and in 1919 these exports were valued at 5,800,000 yen. This trade has declined greatly since that year. Appreciable quantities of sulphur were formerly exported from Japan to the United States, but this trade has now become negligible. Plants for insecticides are also shipped to the United States in considerable quantities.

DYES, PIGMENTS, COATINGS, ETC.

(Group VII of imports and Group VI of exports.)

Of this group the most important import is aniline dyes. Before the war Germany supplied much the greater part of these commodities, and the United States exported none at all to Japan. In 1916 the United States sent the first shipment of these dyes to Japan, and these constantly increased until in 1919 the American imports were valued at 8,300,000 yen, representing 79 per cent of the total. Statistics for later years are not complete, but the available data indicate that Germany is regaining some of her lost trade in these dyes.

Imports of coal-tar dyes, 1913, 1916-1921.

[Values in thousands of yen.]

Imported from—	1913	1916	1917	1918	1919	1920 ¹	January-June, 1921. ¹
United States.....		36	1,757	7,239	8,314		
Germany.....	6,996	2,789	1,898	3,103	216		
Switzerland.....	561	220	605	536	1,755		
Other countries.....	201	393	287	359	1,198		
Total.....	7,758	3,438	4,547	11,238	10,483	17,725	7,015

PER CENT DISTRIBUTION.

United States.....		1.05	38.64	64.41	79.32		
Germany.....	90.18	81.13	41.74	27.63	2.06		
Switzerland.....	7.23	6.39	13.34	4.77	16.74		
Other countries.....	2.59	11.43	6.28	3.18	11.43		
Total.....	100.00	100.00	100.00	100.00	100.00		
Total quantity in thousands of kin.....	9,175	541	642	1,942	2,190	3,676	1,756
Average value, yen per kin.....	0.85	6.35	7.08	5.78	5.24	4.82	4.00
Per cent imports of coal-tar dyes are of total import trade.....	1.07	.45	.44	.58	.53	.76	.88

¹ Imports by countries not available for 1920 and 1921.

The United States has also displaced Germany or Great Britain as a source of supply for the following articles: Oxide of cobalt, liquid gold and silver, ultramarine blue, varnish, and pencils. The value of each of these imports is small.

Japan sends practically none of the articles in this group to the United States, about the only exports being small quantities of pencils of a cheaper grade and some metal powders.

TEXTILES.

(Groups VIII, IX, and X of imports and Groups VII, VIII, and IX of exports.)

The trade between United States and Japan in the articles included in the textile group is quite important. Raw cotton stands out as the most important import into Japan of this group, and, except for two years, has long been the most important of all imports from the United States. The percentage, however, which the cotton imports form of the total has shown a marked tendency to decline. Immediately prior to the war this one article formed more than half of the total imports from the United States, and this proportion continued until 1916. In that year the proportion declined materially, and since that time has usually formed something over one-third of the total. The two years in which imports of this article were not in first place were 1917 and 1918, when the cotton imports were unusually small and were exceeded by those of iron and steel.

In the two tables following appear details regarding the trade in cotton. The first indicates in values and percentages the imports of cotton and the second is concerned with quantities.

Chief sources of imports of ginned cotton, 1913-1921.

[Values in thousands of yen.]

		Ginned cotton.							
Year.	Total import trade.	Total.		From United States.		From British India.		From China.	
		Value.	Per cent of total import trade.	Value.	Per cent of total imports of ginned cotton.	Value.	Per cent of total imports of ginned cotton.	Value.	Per cent of total imports of ginned cotton.
1913.....	729,432	231,481	31.73	64,220	27.74	143,012	61.80	16,206	7.00
1914.....	595,736	217,873	36.58	53,996	24.77	145,428	66.75	11,745	5.39
1915.....	532,450	216,472	40.65	55,654	25.70	139,705	64.54	15,067	6.96
1916.....	756,428	274,478	36.28	79,370	28.91	165,155	60.18	19,337	7.04
1917.....	1,035,811	329,954	31.85	84,085	25.49	204,311	61.91	30,297	9.18
1918.....	1,668,144	515,519	30.90	205,108	39.79	210,084	40.75	88,786	17.22
1919.....	2,173,460	667,867	30.73	286,112	42.84	287,930	43.12	76,730	11.49
1920.....	2,336,174	721,437	30.88	339,164	47.01	357,582	49.56	12,722	1.76
1921 (January-June)...	798,889	219,249	27.44	100,103	45.66	102,810	46.90	10,188	4.64

Imports of ginned cotton, 1913-1921.

[In 500-pound bales.]

Year.	Total bales.	From United States.		From British India.		From China.	
		Bales.	Per cent of total.	Bales.	Per cent of total.	Bales.	Per cent of total.
1913.....	1,772,993	455,021	25.66	1,059,509	59.76	152,115	8.58
1914.....	1,640,984	362,430	22.09	1,096,017	66.79	110,316	6.72
1915.....	1,929,076	427,243	22.15	1,295,185	67.15	156,612	8.12
1916.....	2,212,404	583,590	26.38	1,357,918	61.38	174,601	7.89
1917.....	1,864,526	451,052	24.19	1,189,133	63.78	170,369	9.14
1918.....	1,805,798	664,013	36.77	767,980	42.53	325,657	18.03
1919.....	2,094,947	823,798	39.33	945,755	45.14	262,960	12.55
1920.....	2,073,781	865,861	41.76	1,109,774	53.51	53,703	2.59
1921 (January-June).....	1,112,420	394,704	35.48	623,537	56.05	62,698	5.64

It will be noted that the values of this import from the United States increased enormously during the war, reaching a maximum value in 1920 of 339,000,000 yen, as compared with 64,000,000 yen in 1913, an increase of 428 per cent. In quantity the imports during that same period increased but 90 per cent. The proportion which the American imports forms of the total is smaller when measured in quantity than when indicated in values. This is accounted for by the fact that the American cotton is of a better grade than is the imported Oriental product and consequently commands a higher price. Prior to 1917 the United States supplied about one-fourth of the total Japanese cotton imports as measured in quantity, and somewhat more than this amount as measured in value. In 1918 came a marked increase in percentages, which reached a maximum for 1920, when United States supplied 42 per cent of the total quantity of cotton imports. The first six months of 1921 show some decrease in these percentages, but they are still well above the pre-war figures.

Japan imports considerable quantities of piece goods and other cotton manufactures. Formerly practically all this came from Great Britain, but during the war the United States became a factor in the market and in 1919 the American imports were valued at 1,500,000 yen representing the unusually large proportion of 21 per cent of the total. Since that year this trade has decreased very materially, but it is still above the pre-war figures.

Raw silk as measured in value is the most important export of Japan, and the United States is the chief market. In the following tables are statistics of this trade:

Exports of raw silk to the United States, 1913-1921.

[Values in thousands of yen.]

Year.	Japan's total export trade with United States.	Exports of raw silk to the United States.		Year.	Japan's total export trade with United States.	Exports of raw silk to the United States.	
		Value.	Per cent of total export trade with the United States.			Value.	Per cent of total export trade with the United States.
1913.....	184,473	125,909	68.25	1918.....	530,129	318,673	60.11
1914.....	196,426	134,800	68.63	1919.....	828,098	600,843	72.56
1915.....	204,142	127,349	62.38	1920.....	565,018	341,599	60.46
1916.....	340,245	224,093	65.86	1921 (January-June)...	204,998	153,838	75.04
1917.....	478,537	306,170	63.98				

[Quantities in thousands of kin; values in thousands of yen.]

Year.	Exports of raw silk to United States.			Year.	Exports of raw silk to United States.		
	Quantity.	Value.	Per cent of value of total raw silk exports.		Quantity.	Value.	Per cent of value of total raw silk exports.
1913.....	13,341	125,909	66.65	1918.....	20,859	318,673	86.06
1914.....	14,269	134,800	83.31	1919.....	27,530	600,843	96.35
1915.....	14,963	127,349	83.77	1920.....	14,702	341,599	89.26
1916.....	18,182	224,093	83.92	1921 (January-June)...	10,064	153,838	99.94
1917.....	22,063	306,170	86.21				

As will be seen from the tables, the one item of raw silk has for a considerable number of years formed from 60 to 75 per cent of the total exports from Japan to the United States. It will be noted that while the quantity of exports increased greatly during the war, there was no such increase in quantity as there was in value. It will also be noted that the proportion which the exports to the United States form of the total have quite consistently increased, and in the first half of 1921 this country was practically the sole market for this commodity.

A considerable amount of waste silk is also exported. Formerly no large amount of these exports was marketed in the United States, but the quantity has increased until in 1919 and 1920 over half of the total was sent to this country.

Quantities and values of waste silk exported to the United States, 1913-1921.

[Quantities in thousands of kin; values in thousands of yen.]

Year.	Quantity.	Value.	Per cent of value of total waste silk exports.	Year.	Quantity.	Value.	Per cent of value of total waste silk exports.
1913.....	564	1,003	9.58	1918.....	4,493	14,446	41.70
1914.....	312	587	12.56	1919.....	2,116	10,169	57.92
1915.....	996	1,477	24.81	1920.....	1,496	9,399	53.58
1916.....	1,465	2,572	24.54	1921 (January-June)...	549	1,130	36.67
1917.....	1,973	4,667	28.20				

Habutae is one of the most important fabrics exported from Japan, and an increasingly large amount of this has been sent to the United States since 1913. The exports of this tissue as measured in value have increased enormously, and the quantities have also shown a large gain. Of the large exports in 1919 United States took 46 per cent.

Exports of habutae to the United States, 1913-1921.

[Quantities in thousands of kin; values in thousands of yen.]

Year.	Quantity.	Value.	Per cent of value of total habutae exports.	Year.	Quantity.	Value.	Per cent of value of total habutae exports.
1913.....	376	5,007	14.35	1917.....	880	16,090	33.88
1914.....	492	6,796	22.00	1918.....	751	16,781	23.91
1915.....	674	8,372	21.71	1919 ¹	1,361	46,498	45.91
1916.....	793	12,799	31.01				

¹ Last year for which details of exports are available.

In recent years Japan has been exporting appreciable quantities of cotton tissues to the United States and this trade has shown no decline as late as June, 1921. In 1919 articles of this type valued at 2,200,000 yen were exported to the United States. Japan also carried on a thriving trade in buttons during the war. In 1913 the buttons exported to the United States from Japan were valued at 113,000 yen; in 1919 at 2,500,000 yen. During the first six months of 1921, however, this trade had a very serious decline.

PAPER, PAPER MANUFACTURES, ETC.

(Group XI of imports and Group X of exports.)

Prior to the war, the paper imports into Japan from the United States were quite small, amounting to only 293,000 yen in 1913, Germany and Great Britain being the main source of supply for the imports of this type. After the outbreak of hostilities, however, the American trade grew immensely when measured in percentages. In 1916, of the total imports valued at 5,800,000 yen, the United States supplied 1,500,000 yen; in 1918 the paper from the United States was valued at 8,055,000 yen and the total imports at 9,400,000 yen; in 1919 out of the total of 18,300,000 yen, American

imports were valued at 15,700,000 yen. Since then both the total and the proportion furnished by the United States have declined. In the first half of 1921 total imports were 4,700,000 yen and the United States portion was 1,800,000 yen.

Japan exports to the United States small quantities of paper, mostly of a specialty type. In 1913 these exports were valued at 397,000 yen and the trade has increased in value rather consistently during the war, reaching a maximum in 1920 when exports were valued at 742,000 yen. During the war a large increase in exports of Japanese papers to Oriental countries occurred.

MINERALS AND MANUFACTURES THEREOF.

(Group XII of imports and Group XI of exports.)

The only important nonmetallic minerals entering into the trade between the United States and Japan are phosphates and coal (bunker coal for ships). Prior to the war Japan imported phosphates from the United States. This country in 1913 supplied 11 per cent of the total valued at 8,600,000 yen. These imports from the United States ceased after 1915 and the trade had not revived as late as 1919, the last available data.

Bunker coal taken on board American vessels in Japanese ports for steaming use is recorded as exports to the United States. The amount thus used is not large, being valued at 633,000 yen or 2½ per cent of the total coal exports in 1914. Immediately after the outbreak of hostilities the amount of coal which the United States got from Japan decreased and became negligible after 1915.

The United States is an important source for various other mineral imports as indicated by the following table. The value of none of these imports is large, asbestos being the most important.

Imports of minerals and manufactures thereof, 1913, 1917-1919.

[Quantities in thousands of kin; values in thousands of yen.]

Article.	1913					1917	
	Total.		From United States.			Total.	
	Quantity.	Value.	Quantity.	Value.	Per cent of total (value).	Quantity.	Value.
Mineral substances for grinding or polishing.....						883	159
Metal polishes.....	527	75	359	47	63	1,042	192
Grindstones or whetstones, artificial.....	153	92	138	81	88	210	180
Precious stones.....							1,414
Asbestos in lump, powder, or fiber.....	371	73				8,644	2,370
Other asbestos and manufactures thereof.....	741	163	3	4	2	687	246
Talc and soapstone.....						17,026	374
Gypsum.....	2,614	29				8,656	157
Cryolite.....						34	8
Clay.....						31,750	431
Phosphorite.....	552,145	8,618	64,958	958	11	259,077	5,099
Coal.....	1,572	4,034				1,707,421	9,030
Coke.....	120	422				1,51,451	1,608
All other minerals, and manufactures thereof.....		806		109	14		848
Total.....		14,312		1,199	8		21,990

¹ Tons.

Imports of minerals and manufactures thereof, 1913, 1917-1919—Continued.

Article.	1918			1919				
	From United States.			Total.		From United States.		
	Quantity.	Value.	Percent of total (value).	Quantity.	Value.	Quantity.	Value.	Percent of total (value).
Mineral substances for grinding or polishing.....	718	131	83	1,931	492	1,267	355	72
Metal polishes.....	943	161	84	750	230	687	208	90
Grindstones or whetstones, artificial.....	205	180	98	765	767	756	761	99
Precious stones.....		79	6		4,033		50	1
Asbestos in lump, powder, or fiber.....	7,092	1,821	80	6,382	1,591	3,340	875	55
Other asbestos and manufactures thereof.....	76	125	51	634	617	203	350	57
Talc and soapstone.....	1,041	21	6	18,856	382			
Gypsum.....	2,144	29	21	4,967	150	551	19	13
Cryolite.....				725	255	158	62	24
Clay.....	507	32	8	8,015	111	107	4	4
Phosphorite.....				319,228	8,576			
Coal.....				1,609,646	18,688			
Coke.....				126,111	1,263			
All other minerals, and manufactures thereof.....		326	38		1,277		301	24
Total.....		2,906	13		38,332		2,985	8

¹ Tons.

POTTERIES, GLASS, AND GLASS MANUFACTURES.

(Group XIII of imports and Group XII of exports.)

Japan imports moderate quantities of glass, much the greater part being of the sheet and plate type. Prior to the war, the United States furnished practically none of this plate or sheet glass, Belgium being the main source of supply. This country first became an appreciable factor in the trade in 1915, and shipments constantly increased until in 1919 of the total glass imports valued at 2,760,000 yen, the United States furnished 2,300,000 yen. Japan sent very small quantities of this class of exports to the United States in pre-war times, but shipments began to increase after 1915 and in 1920 were valued at 2,600,000 yen. Statistics for the first half of 1921 indicate a large decline in this trade. The Japanese exports consist largely of beads and balls, thermos bottles, looking-glasses, and other specialties.

Japan imports small amounts of pottery and exports much larger quantities. United States has been the largest individual market for the pottery and usually from 30 to 45 per cent of the total is exported to this country. This trade remained about stationary during the war, but increased after the close of hostilities. In 1913 the exports to the United States were valued at 3,140,000 yen; in 1920 at 9,450,000 yen. The available data indicate that the trade suffered no decline during the first half of 1921.

Japan imports small quantities of fire brick. Prior to the war, the United States furnished only a minor part of the total, but the proportion increased later and this country is now the principal

source of supply. The imports of this article from the United States in 1913 were valued at 51,000 yen and in 1919 at 164,000 yen.

ORES AND METALS.

(Group XIV of Imports and Group XIII of exports.)

The trade in the articles included in this group has increased immensely in the more recent years. Prior to the war the imports of iron and steel, exclusive of machinery and certain fabricated articles, from the United States, were not particularly important, being from 5 to 7 per cent of the total imports from this country. Beginning with 1915 the imports increased rapidly both relatively and absolutely and in 1917 constituted 46 per cent of the total imports from the United States. The absolute value reached the maximum in 1918, when the imports from this country were valued at 220 million yen. Since then there has been a decline both relatively and absolutely, though both are much above pre-war figures.

Prior to the war Japan obtained only a very small proportion of the cruder forms of iron and steel from the United States, as this country supplied less than 1 per cent of the total. Later the American share in this trade increased and in 1917 equalled 14 per cent of the total. In 1919 a maximum value of 9,000,000 yen was reached. Prior to the war Great Britain, China, Sweden, and British India were the main sources of supply.

Imports of iron and steel, raw or partly fabricated, excluding waste or old.

[Values in thousands of yen.]

Year.	Total.	From the United States.		Year.	Total.	From the United States.	
		Value.	Per cent of total.			Value.	Per cent of total.
1913.....	12,386	27	0.22	1918.....	64,109	7,003	10.00
1914.....	8,046	229	3.00	1919.....	57,946	9,274	16.00
1915.....	7,950	155	2.00	1920.....	41,996	4,450	10.00
1916.....	16,721	1,512	9.00	1921 (January-June)...	10,069	99	1.00
1917.....	25,238	3,574	14.00				

The United States also furnishes Japan with considerable quantities of waste and old iron. This trade amounted to over 5,500,000 yen in 1918.

The commerce in rolled, cast, and forged iron and steel products shows a still greater shift in the source of supply. Before the war Great Britain supplied most of this type of iron and steel, although relatively large quantities also came from Germany and some from Sweden. The trade constantly shifted to the United States during the war, until in 1918 this country supplied 95 per cent of the total. Later the proportion which the United States furnished decreased somewhat, but in the first half of 1921 it was supplying about three-fourths of the total. Statistics of this trade are shown in the following table:

Imports of iron and steel, rolled, cast, forged, or drawn, 1913-1921.

[Values in thousands of yen.]

Year.	Total.	From the United States.		Year.	Total.	From the United States.	
		Value.	Per cent of total.			Value.	Per cent of total.
1913.....	37,293	2,744	7.54	1918.....	206,087	194,199	94.83
1914.....	27,647	2,532	9.39	1919.....	158,056	133,924	85.40
1915.....	24,888	11,767	48.17	1920.....	202,412	183,834	76.58
1916.....	67,478	41,069	61.70	1921 (January-June)...	80,852	59,565	74.58
1917.....	167,284	153,043	91.82				

The source of supply of iron pipes, tubes, etc., has also shifted materially. Prior to the war the United States furnished but 4 or 5 per cent of the total imports of this class. Later this proportion increased, reaching a maximum of 22 per cent in 1918, when the imports from America were valued at approximately 13,000,000 yen. This proportion later decreased somewhat but is now about three times what it was before the war both relatively and absolutely.

Statistics of this trade appear in the following table:

Imports of iron pipes and tubes (elbows and joints, drawn and "other," coated and not coated with base metals), 1913-1921.

[Values in thousands of yen.]

Year.	Total.	From the United States.		Year.	Total.	From the United States.	
		Value.	Per cent of total.			Value.	Per cent of total.
1913.....	75,935	3,653	4.81	1918.....	57,563	12,924	22.45
1914.....	48,966	2,564	5.24	1919.....	52,677	11,402	21.64
1915.....	15,113	1,071	7.09	1920.....	71,363	12,054	16.89
1916.....	28,092	2,725	9.70	1921 (January-June)...	36,930	5,878	15.92
1917.....	45,277	7,878	17.40				

Before the war Japan imported practically all her nickel from Great Britain. After the outbreak of hostilities the United States entered the market with constantly increasing supplies and in 1918 and in 1919 furnished nearly all. In the latter year the value of these imports from the United States was 3,500,000 yen. Australia in pre-war times was the principal source of supply for Japan's lead imports, the United States furnishing only very small quantities. During the war relatively large supplies were drawn from this country, and in 1918, out of a total import valuation of 14,700,000 yen, the United States portion was 5,400,000 yen. In 1919 the American imports were valued at 3,200,000 yen and the total at 10,900,000 yen.

Japan produces and imports and exports copper. Under normal conditions Japan imports no copper from the United States, the occasional shipments being of a sporadic nature. In 1913 Japan marketed copper to the value of 3,300,000 yen, or 12 per cent of the total exports of this commodity in the United States. Immediately after the outbreak of hostilities the exports increased, then became less, and after 1918 are negligible.

METAL MANUFACTURES.

(Group XV of imports and Group XIV of exports.)

Of the articles included in this group, iron nails and railroad and construction material are the most important. Immediately preceding the war, Germany was the main source of supply for iron nails, though the United States furnished considerable quantities. The share of this country increased as the war progressed, and beginning with 1915 the United States has supplied much the greater portion. The largest imports were in 1920, when the total was valued at 6,700,000 yen, and the American portion at 6,360,000 yen.

Imports of iron nails, 1913-1921.

(Values in thousands of yen.)

Year.	Total.	From the United States.		Year.	Total.	From the United States.	
		Value.	Per cent of total.			Value.	Per cent of total.
1913.....	1,370	498	36.36	1918.....	5,809	5,614	96.64
1914.....	508	92	18.12	1919.....	5,125	4,898	95.57
1915.....	538	410	76.21	1920.....	6,696	6,365	95.06
1916.....	4,203	3,895	92.67	1921 (January-June)...	2,524	2,151	85.23
1917.....	2,530	2,482	98.10				

Railroad and construction material form the largest item in this group. The total imports of these materials, valued at 7,700,000 yen in 1913, increased to 24,400,000 yen in 1919. This trade has shown little or no decline since the war. The United States has long been an important source of supply for these materials, but became increasingly important as the war progressed and since 1917 has furnished practically all the imports. The table below contains statistics regarding this trade:

Imports of railroad and construction materials, 1913-1921.

(Values in thousands of yen.)

Year.	Total.	From the United States.		Year.	Total.	From the United States.	
		Value.	Per cent of total.			Value.	Per cent of total.
1913.....	7,686	3,496	45.49	1918.....	16,924	16,418	97.01
1914.....	3,258	2,027	62.22	1919.....	24,377	24,242	99.45
1915.....	822	677	82.37	1920.....	23,029	22,828	99.13
1916.....	1,073	799	66.08	1921 (January-June)...	12,868	16,638	98.21
1917.....	9,700	9,317	96.05				

The United States is also the main source of supply for the following articles: Iron screws, iron bolts, nuts and washers, iron rivets, and typewriters. The value of each of these imports is, however, small.

CLOCKS, WATCHES, SCIENTIFIC INSTRUMENTS, MACHINERY, ETC.

(Group XVI of imports and Group XV of exports.)

The most important items in this group are machinery and engines. The United States has long been an important source of supply for the Japanese imports of this character. As the war progressed Japan relied more and more upon this country until, in 1918, 80 per cent of the total imports of this class came from the United States. The American share has decreased since that year, but at present is relatively more than double what it was at the outbreak of the war, and the absolute values in 1920 were eight times what they were in 1913. This trade has shown no decline as late as June, 1921. Spinning machinery constitutes the largest single item in this group. The greater part of this class of machinery is imported from this country, though Great Britain also supplies appreciable quantities. Metal and woodworking machinery is the second largest item and practically all this comes from the United States. Other relatively important articles which come mainly from the United States are dynamos, sewing machines, gas compressors, and gas engines.

Imports of machinery and engines, 1913-1921.

[Values in thousands of yen.]

Year.	Total.	From the United States.		Year.	Total.	From the United States.	
		Value.	Per cent of total.			Value.	Per cent of total.
1913.....	36,762	9,056	24.63	1918.....	58,498	46,753	79.92
1914.....	24,948	5,035	20.19	1919.....	89,222	66,866	74.95
1915.....	9,067	2,940	32.43	1920.....	110,571	73,536	66.52
1916.....	16,271	7,890	48.43	1921 (January-June)...	67,619	39,418	58.30
1917.....	29,838	17,033	57.08				

The second most important class of articles in this group is railway carriages. Immediately prior to the war this trade was divided among Germany, the United States, and Great Britain. After the outbreak of hostilities the trade with the United States consistently gained, and since 1917 this country has been practically the sole source of supply.

Imports of railway carriages and parts, 1913-1921.

[Values in thousands of yen.]

Year.	Total.	From the United States.		Year.	Total.	From the United States.	
		Value.	Per cent of total.			Value.	Per cent of total.
1913.....	2,075	809	39.00	1918.....	3,097	3,087	99.68
1914.....	1,981	703	35.50	1919.....	6,782	6,765	99.75
1915.....	619	327	52.83	1920.....	7,117	6,773	95.17
1916.....	299	177	59.20	1921 (January-June)...	3,233	3,001	92.83
1917.....	2,219	2,198	99.06				

In recent years the import trade in automobiles and automobile parts has been flourishing, a marked increase having occurred since 1916. In 1919, the maximum year, these imports were valued at 11,200,000 yen and practically all came from the United States.

The value of watches imported into Japan is considerable. In pre-war times Switzerland was the main source of supply, though considerable quantities were secured in the United States. During the latter part of the war and the years immediately following the American trade gained but did not equal that of the Swiss. In 1919 the watches imported from this country were valued at 500,000 yen. Japan also imports considerable quantities of scientific instruments, such as surveying, surgical, etc. The greater part of these are now secured in this country. During the war Japan sold a limited number of steam vessels to the United States, these being valued at 3,800,000 yen in 1917 and 18,000,000 yen in 1918.

MISCELLANEOUS.

(Group XVII of imports and Group XVI of exports.)

Toys and brushes are the largest exports in this group from Japan to the United States. Matches, although officially included in the drug and chemical group, are discussed here also.

Miscellaneous exports to the United States, 1913-1921.

[Values in thousands of yen.]

Year.	Toys.	Brushes.	Matches.	Year.	Toys.	Brushes.	Matches.
1913.....	829	1,250	22	1918.....	1,621	4,707	1,382
1914.....	1,034	1,495	85	1919.....	5,752	4,571	1,425
1915.....	1,101	1,285	326	1920.....	10,813	5,202	112
1916.....	2,430	2,146	1,401	1921 (January-June)...	1,545	1,173	65
1917.....	3,790	3,717	1,728				

The toy industry has had an immense development in Japan during the war, and this increased production is reflected in larger exports. The total exports of these articles increased from 2,500,000 yen in 1913 to over 21,000,000 yen in 1920. In the first half of 1921, however, the exports were valued at only 3,300,000 yen. The United States has always been the largest individual market for these toys, from one-third to one-half the total being sent to this country. These exports to the United States in 1913 were valued at 829,000 yen and in 1920, when the peak was reached, at 10,800,000 yen. There was, however, a precipitous decline in the exports to this country in the first half of 1921, when they were valued at 1,545,000 yen. This reduction, however, may be partly accounted for by the seasonal character of the trade.

The brush industry also thrived in Japan during the war, and exports increased. Various kinds of brushes, hair, tooth, nail, and clothing are made, toothbrushes being the most important export. In 1913 the total brush exports were valued at 2,300,000 yen; in 1918, the maximum year, at 10,600,000 yen. The United States has been the most important market for these brushes, as usually about half of the

total are marketed in the United States, the exact proportion varying from year to year. In the first half of 1921 this country increased in importance as a market for these exports.

Japan has long exported considerable quantities of matches, but before the war only small quantities were sent to the United States, this country receiving less than 1 per cent of the total exports. After the outbreak of hostilities the American proportion and the absolute amount both increased, and in 1917, 7 per cent of the total, valued at 1,700,000 yen, was sent to the United States. These exports have declined greatly since 1919 and are now relatively on about the same level as before the war, though the absolute values are much larger.

Considerable quantities of braids or plaits for hats are likewise exported by Japan. These exports did not increase during the war in the same proportion as most exports did. The United States is the principal market for these, and from 40 to 50 per cent of the total are consistently sent to this country.

Exports of hat braids to the United States, 1913-1921.

[Quantities in thousands of bundles; values in thousands of yen.]

Year.	Quantity.	Value.	Per cent of value of total braid exports.	Year.	Quantity.	Value.	Per cent of value of total braid exports.
1913.....	18,599	6,769	43.14	1918.....	19,219	5,653	47.11
1914.....	19,808	7,111	49.54	1919.....	19,634	8,592	42.93
1915.....	23,855	7,052	49.90	1920.....	13,815	7,766	35.36
1916.....	29,085	7,870	48.22	1921 (January-June)...	4,125	1,350	49.13
1917.....	27,461	7,807	42.96				

Japan also exports considerable quantities of matting and the United States is the largest market for these articles. In 1919 these exports to the value of 1,800,000 yen were sent to the United States. Formerly, appreciable quantities of timber were exported from Japan to the United States but these are now insignificant. Also small amounts, as measured in value, of bamboo and bamboo manufactures, willow baskets, lacquer ware, Japanese lanterns, and fans are sent to this country.

The imports of this group into Japan from the United States include a considerable number of articles. None, however, are of very great importance. Appreciable amounts of carbon for electrical use are imported, and also a considerable quantity of manufactured rubber articles. Another item in the imports schedule is tarred and felt paper. Films for photographic purposes of considerable value are also sent to Japan from the United States.

TRADE WITH THE UNITED STATES IN INDIVIDUAL COMMODITIES.

The following tables show the value and percentage of principal articles in the trade between Japan and the United States in comparison with the total Japanese imports and exports of the same articles:

Japan's principal exports to the United States, 1913, 1915-1921.

[Values in thousands of yen.]

Articles.	1913			1915			1916			1917		
	To United States.		Total.	To United States.		Total.	To United States.		Total.	To United States.		Total.
	Value.	Per cent of total.		Value.	Per cent of total.		Value.	Per cent of total.		Value.	Per cent of total.	
Rice and paddy.....	4,373	32	9,677	2,803	20	11,197	2,122	19	14,053	3,174	22	14,053
Beans and peas.....	1,351	41	8,123	1,358	17	14,854	4,520	30	31,790	19,950	63	31,790
Peanuts.....	1,939	83	8,919	1,796	87	1,286	1,087	85	1,835	1,559	85	1,835
Tea.....	777	88	15,402	13,186	86	16,082	13,306	83	21,756	18,797	86	21,756
Flour, other than wheat (including starch).....	116	20	1,069	39	4	4,990	1,304	26	15,152	1,912	13	15,152
Vegetables, fresh or dried, other than beans and peas.....	3,435	9	3,289	361	11	4,251	766	18	4,024	649	14	4,024
Soy.....	985	38	1,987	305	31	1,110	382	34	1,452	605	42	1,452
Collie, or isinglass, vegetable.....	1,774	7	1,706	166	15	2,447	375	15	1,955	250	13	1,955
Saké.....	2,198	23	1,776	315	18	2,030	394	19	2,164	374	17	2,164
Crabs in tins.....	1,469	83	1,579	953	60	3,305	1,851	93	4,455	1,946	44	4,455
Calcut.....	179	76	226	208	92	3,302	282	63	4,164	1,147	90	4,164
Brushes.....	818	47	1,536	469	30	2,031	893	44	3,937	2,751	70	3,937
Tooth.....	1,460	59	2,336	826	35	3,271	1,253	38	2,137	1,946	45	2,137
Other.....	1,197	35	2,256	82	32	3,921	1,641	70	1,137	1,187	95	1,137
Soya-bean oil.....	1,343	69	2,896	334	12	3,765	2,082	55	3,993	2,597	65	3,993
Colza (rape seed) oil.....	411	53	3,319	296	90	3,308	284	86	3,316	2,218	69	3,316
Camphor oil.....	219	23	2,236	51	2	3,385	1,264	37	3,626	1,736	48	3,626
Fish and whale oil.....	3,484	1	2,164	302	31	1,736	511	30	1,566	1,513	33	1,566
Vegetable wax.....	1,028	20	1,742	313	31	1,736	511	30	1,566	1,513	33	1,566
Dried plants (for insecticide).....	115	7	2,579	656	42	720	575	54	2,310	789	70	2,310
Fertilizers.....	85	15	2,488	917	25	4,126	575	19	1,200	83	1	1,200
Sulphur.....	1,981	43	2,488	917	39	6,216	1,200	19	6,143	83	1	6,143
Camphor.....	2,230	19	3,475	917	26	6,288	3,125	50	5,314	2,440	46	5,314
Menthhol.....	2,873	17	1,846	931	52	2,411	812	34	1,504	2,500	58	1,504

"All other" drugs.....	820	11	1	4,139	383	9	13,000	1,064	8	9,231	2,206	24
Cocorns.....	186	186	24	664	355	53	824	500	68	769	540	71
Raw silk.....	188,917	125,900	67	152,051	127,340	84	267,037	224,063	81	355,155	306,170	80
Silk waste.....	10,471	1,003	10	5,952	1,477	25	10,480	2,572	21	10,540	4,667	28
Silk tissues (including habutae).....	39,347	5,195	13	43,219	8,610	20	50,632	14,107	28	62,858	19,481	31
Cotton tissues.....	33,006	317	1	38,511	8,312	1	60,051	1,428	2	127,458	1,655	1
Silk handkerchiefs.....	740	140	15	2,723	651	24	4,325	1,653	38	4,662	2,320	50
Silk nightgowns.....	5,001	323	36	7,721	261	25	883	1,977	31	805	2,283	35
Silk kimonoas.....	882			663	364	59	990	433	45	1,002	575	57
Other kimonoas.....				811	365	45	1,173	695	59	1,057	562	53
Table cloths.....												
Embroidered or drawn work.....												
Other.....	1,132	698	62	1,388	991	66	2,080	1,373	66	1,064	708	67
Hats, caps, and bonnets.....	5,020	3,716	60	541	307	73	818	1,538	66	1,816	1,395	77
Manufactures of tissues n. e. s. (em- broidered, darned, drawnwork, other).....	426	113	27	3,300	1,886	60	6,664	4,386	66	5,952	3,150	53
Carpets and carpeting.....	2,471	1,275	52	3,686	1,067	26	4,698	1,571	34	2,271	739	33
Paper and manufactures of.....	5,435	708	56	1,000	576	48	2,371	1,508	64	2,519	1,757	70
Cord (not including rope).....	23,029	1,111	5	19,237	506	8	14,351	1,793	6	22,119	1,084	5
Copper (ingots and slabs).....	28,184	3,304	12	41,294	5,365	12	66,119	3,054	4	26,454	97	4
Antimony.....	468	157	34	7,707	5,186	41	9,477	4,384	46	87,495	3,203	61
Railway ties.....	1,633	254	13	1,663	3,186	3	1,532	4,384	46	8,441	5,133	61
Matches.....	7,961	22		10,867	326		16,174	1,401		1,235		
Hat materials (straw braids, etc.).....	15,691	6,769	43	14,132	7,021	3	16,174	7,870	9	19,007	1,716	9
Buttons.....	3,312	113	3	4,008	451	60	16,313	7,870	48	18,171	7,807	43
Lily bulbs.....	974	406	42	4,008	353	12	7,517	1,642	22	10,259	2,001	28
Toys.....	2,490	829	42	4,779	779	12	686	1,440	63	1,581	642	94
Mats and matting (Hanagoza).....	4,064	2,926	33	4,533	1,101	28	7,640	2,430	32	8,410	3,790	45
Bamboo baskets.....	4,955	439	46	2,281	1,313	58	2,883	1,698	59	2,180	1,526	70
Fans.....	1,137	232	20	581	567	72	1,099	1,769	72	653	496	76
Pottery.....	6,724	3,140	47	6,964	2,011	17	12,104	4,191	30	591	177	30
All other articles.....	196,412	6,187	3	297,174	2,019	42	425,340	14,800	35	14,474	4,942	34
Total.....	632,460	184,473	29	708,307	204,142	29	1,127,468	340,245	30	1,043,006	478,537	30

Other kimono.	899	157	17	2,044	1,331	65	3,203	(1)	(1)	245	(1)	(1)
Table cloths:										740	(1)	8
Embroidered or drawn work.	928	262	28	804	290	36	974	(1)	(1)	1,004	(1)	
Other.	955	249	26	2,185	1,437	66	3,241	(1)	(1)	621	(1)	
Hats, caps, and bonnets.	6,716	1,252	19	8,580	1,751	20	6,817	(1)	26			
European clothing.	2,177	631	29	8,098	1,215	20	4,260	(1)	(1)			
Manufactures of tissues n. c. s. (embroidered, darned, drawnwork, other).	2,814	439	16	2,719	837	31	3,573	(1)	(1)	901	(1)	
Carpets and carpeting.	2,160	1,898	60	6,713	5,290	78	9,363	(1)	(1)	1,896	(1)	
Paper and manufactures of.	37,436	781	2	36,513	1,177	3	34,367	(1)	(1)	12,486	(1)	
Coal (not including coke).	37,009			37,724	18		45,200	(1)	(1)	19,072	(1)	
Copper (tins and slabs).	37,744	47		19,617			5,139	(1)	(1)	5,963	(1)	
Antimony.	1,551	710	46	387	380	65	3,342	(1)	(1)	1,897	(1)	
Railway ties.	1,958			3,116			3,996	(1)	(1)	7,049	(1)	1
Matches.	27,743	1,322	5	32,968	1,426	4	28,453	(1)	35	2,748	(1)	49
Mat materials (straw braids, etc.).	11,996	5,653	47	20,015	8,592	43	21,961	(1)	21	1,845	(1)	21
Buttons.	11,918	2,299	19	10,285	2,946	25	9,962	(1)	(1)			
Lily bulbs.		24		1,731	1,219	69	1,040	(1)	51			46
Toys.	10,100	1,621	16	13,001	5,752	44	21,189	(1)	(1)	3,331	(1)	
Mats and matting (Hansoga).	2,965	2,199	76	2,918	1,703	58	3,815	(1)	(1)	572	(1)	
Bamboo baskets.	319	159	50	706	432	61	1,792	(1)	(1)	548	(1)	
Fans.	691	96	14	960	112	12	1,154	(1)	(1)	449	(1)	
Pottery.	19,958	4,459	22	22,630	6,056	27	31,452	(1)	30	10,012	(1)	43
All other articles.	798,810	63,452	8	635,052	48,299	8	688,034	(1)	(1)	166,770	(1)	
Total.	1,962,101	530,129	27	2,096,373	823,098	39	1,946,395	565,015	29	573,853	204,998	36

Unavailable.

Total for all brushes—not listed separately.

THE FOREIGN TRADE OF JAPAN.

Japan's principal imports from the United States, 1913, 1915-1921.

[Values in thousands of yen.]

Article.	1913			1915			1916			1917		
	Total.	From the United States.		Total.	From the United States.		Total.	From the United States.		Total.	From the United States.	
		Value.	Per cent of total.		Value.	Per cent of total.		Value.	Per cent of total.		Value.	Per cent of total.
Wheat.....	12,351	9,492	77	1,639	224	14	1,356	19	1	666		
Wheat flour.....	1,780	1,601	90	194	174	90	95	59	81	59		
Condensed milk.....	1,857	927	50	1,055	591	56	1,038	677	67	1,390	7	11
Salted salmon and trout.....	2,430	210	49	1,28	29	23	72	55	76			81
Tobacco, leaf.....	895	869	97	789	726	92	504	459	91	397	329	83
Malt.....	729			420	383	91	729	849	86	1,886	1,386	93
Hides and skins, bull, ox, cow, buffalo.....	2,187	504	23	5,909	583	868	8,040	728	11	3,774	3,386	10
Leather, dyed or colored.....	303	189	57	236	430	90	214	400	93	515	480	95
Sole leather.....	834	799	96	434	434	100	425	425	100	184	165	90
Mineral oil:												
Crude.....	258			715	715	100	411	411	100	499	499	100
Petroleum, in tins.....	3,691	3,691	100	4,372	4,215	96	2,597	2,595	100	2,273	2,141	94
Petroleum, other.....	7,411	3,886	52	4,091	2,480	61	2,974	2,388	80	3,032	2,764	91
Other illuminating.....	538	377	70	335	313	93	605	585	97	352	320	91
All other.....	1,184	1,055	89	1,041	1,025	98	1,454	1,428	98	1,396	1,384	99
Paraffin:												
Melting point below 45°.....	767	412	54	266	179	67	1,344	1,196	89	523	354	68
Other.....	1,038	318	31	1,808	444	25	2,338	572	24	3,269	592	18
India rubber and gutta percha (crude).....	3,452	200	6	3,432	118	3	7,240	135	2	9,130	202	2
Caustic soda.....	1,315	1	1	1,256	373	85	2,939	2,489	85	6,409	6,353	99
Resin.....	968	698	72	768	648	84	2,332	1,888	81	1,897	1,897	95
Chlorate of potash.....	1,052			2,890	1,379	48	1,762	1,856	49	155	16	10
Bichromate of potash.....	77	52	68	316	312	99	734	715	97	500	500	100
Acetate of calcium.....	553	553	100	317	317	100	205	205	100	62	62	100
Morphine, hydrochlorate of, and sulphate of.....	447			2,415	291	12	3,851	108	3	5,078	25	
Carbolic acid.....	251			215	133	62	3,722	3,666	98	4,749	4,726	99
Miscellaneous drugs, "other".....	3,693	311	8	3,173	1,259	40	4,989	3,072	62	5,495	2,926	54
Logwood extract.....	135	1	1	807	438	54	349	765	47	818	818	74
Raw cotton.....	231,481	64,220	28	216,472	55,654	26	274,478	79,307	29	329,954	84,085	25
Wool (tops and other).....	15,998	29		30,594			33,507	29		52,112	131	
Wool for paper making.....	4,620	114	2	5,975	214	4	9,018	1,205	13	2,801	812	29
Paper.....	7,227	293	4	3,028	436	14	8,827	1,472	25	4,068	1,995	49
Soap and manufacturers thereof.....	237	4	2	373	180	48	1,056	574	54	2,517	1,940	77

Phosphoric.....	8,618	984	11	3,403	218	31	2,731	1,190	72	5,099	1,034	57
Glass sheet and plate.....	2,921	1		708			1,653			1,802		
Iron (bars, rods, T angles, and the like).....	13,840	635	5	5,601	3,508	63	22,508	16,237	72	46,369	39,475	85
Wire rods.....	13,568			1,061	414	38	4,076	1,523	38	6,931	5,310	77
Plate or sheet iron (not coated with metal).....	8,693	1,436	17	7,779	3,110	40	22,742	12,092	53	91,716	87,833	96
Plate or sheet iron, galvanized.....	5,381	488	9	1,224	330	27	1,158	405	36	1,407	1,258	90
Plates and sheets tinned, ordinary.....	4,603	64	1	4,792	976	20	10,084	5,999	59	11,728	11,099	94
Wire, not coated with metals.....	2,572	75	13	383	302	79	626	595	81	1,303	1,199	98
Wire, galvanized.....	2,447	41	2	3,175	2,969	43	4,334	3,797	88	5,858	5,717	98
Pipes and tubes, elbows and joints, drawn, etc.....	6,934	3,653	53	1,380	1,071	78	3,435	2,725	79	8,806	7,879	89
Aluminum.....	2,224	176	78	424	297	17	2,044	2,043	100	2,695	2,674	99
Lead ingots and slabs.....	2,616	33	1	2,910	498	70	7,463	3,263	44	5,871	1,004	17
Zinc ingots and slabs.....	1,566	141	9	1,278	221	17	1,966	316	16	1,764	33	2
Steel ingots and slabs.....	5,421	357	22	1,601	357	22	2,008	556	28	1,032	440	43
Nails, rivets, screws, etc.....	2,398	712	30	959	569	59	5,042	4,304	85	3,785	3,785	95
Rails.....	4,086	1,922	47	603	546	90	4,441	4,407	92	8,814	8,571	97
Posts for electric lines and parts thereof.....	268	258	97	2	2	97	4	4	100	9	9	100
Materials for construction of buildings, bridges, vessels, docks, etc.....	2,872	1,146	40	153	72	47	437	293	67	366	295	81
Insulated electric wire.....	2,062	96	5	422	14	3	1,319	22	2	51	47	92
Mechanics' tools, agricultural implements, etc., and parts.....	497	230	46	184	117	64	246	189	77	648	584	90
Iron manufactures (miscellaneous other).....	770	164	21	398	130	31	701	324	46	1,194	718	60
Railway carriages and parts thereof.....	2,075	809	39	619	328	53	299	177	59	2,219	2,194	99
Automobiles and parts.....	1,110	487	44	165	77	39	713	602	84	2,668	2,633	99
Locomotives and tenders.....	2,387	1,666	70	228	88	39	121	99	82	112	112	100
Dynamos, electric motors, transformers, etc.....	3,659	1,448	40	501	327	65	392	220	56	1,130	1,077	95
Gas compressors.....	298	146	49	129	90	70	340	255	75	415	308	74
Sewing machines.....	810	622	77	243	154	63	790	619	78	1,002	969	97
Metal or wood working machinery.....	3,279	783	24	891	483	54	1,783	1,622	91	3,452	2,965	87
All other machinery ("miscellaneous").....	13,730	2,372	17	3,492	788	23	6,187	2,239	36	11,084	4,712	43
Steam vessels.....	4,001	163	4	2,635	180	7	10,815	8,730	81	7,103		
Iron and steel, raw or partly fabricated.....	12,386	27		7,950	155	2	16,721	9	9	25,238	3,574	14
Pine and fir wood.....	1,280	1,013	79	497	402	81	954	724	74	3,069	2,871	94
All other articles.....	303,253	9,824	3	181,196	9,260	5	245,727	22,263	10	324,469	40,426	13
Total.....	729,432	122,408	17	532,450	102,534	19	756,428	204,079	27	1,035,811	359,708	35

Japan's principal imports from the United States, 1913, 1915-1921—Continued.

[Values in thousands of yen.]

Article.	1918			1919			1920			1921 (January-June).		
	Total.	From the United States.		Total.	From the United States.		Total.	From the United States.		Total.	From the United States.	
		Value.	Per cent of total.		Value.	Per cent of total.		Value.	Per cent of total.		Value.	Per cent of total.
Wheat.....	9,940	.....	.....	38,530	.....	.....	28,505	(1)	(1)	9,053	(1)	(1)
Wheat flour.....	1,286	.....	.....	7,758	.....	.....	3,353	(1)	(1)	1,612	(1)	(1)
Condensed milk.....	1,436	1,355	94	2,453	1,822	79	2,772	(1)	(1)	1,750	(1)	(1)
Salted salmon and trout.....	99	74	75	168	9	5	551	(1)	(1)	.....	(1)	(1)
Tobacco, leaf.....	1,760	1,582	90	5,298	2,216	42	10,537	(1)	(1)	1,739	(1)	(1)
Malt.....	1,422	1,529	37	1,508	384	25	.....	.....	.....	.....	.....	.....
Hides and skins, bull, ox, cow, buffalo.....	6,757	142	2	11,941	719	6	19,360	1,558	8	14,651	3,314	7
Leather, dyed or colored.....	6,977	926	95	1,393	1,366	98	1,019	(1)	(1)	1,323	(1)	(1)
Sole leather.....	583	576	97	1,350	1,333	99	4,031	(1)	(1)	.....	.....	.....
Mineral oil.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Crude.....	207	190	92	634	351	55	1,123	(1)	(1)	775	(1)	(1)
Petroleum, in tins.....	4,190	4,043	96	6,308	5,719	91	6,292	(1)	(1)	2,176	(1)	(1)
Petroleum, other.....	4,346	3,344	77	15,366	12,707	83	14,981	19,085	94	4,949	5,315	75
Other illuminating.....	958	912	96	1,386	1,284	93	2,522	(1)	(1)	775	(1)	(1)
All other.....	3,564	3,549	99	3,171	3,139	99	4,972	(1)	(1)	2,440	(1)	(1)
Paraffin.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Melting point below 45°.....	1,913	1,618	85	1,322	1,142	86	7,572	2,025	27	3,745	835	13
Other.....	4,869	447	9	5,618	1,762	31	13,422	155	1	9,067	.....	.....
India rubber and gutta percha (crude).....	12,948	162	1	17,364	303	2	5,429	(1)	(1)	241	(1)	(1)
Caustic soda.....	3,256	3,031	93	7,483	5,800	78	5,830	(1)	(1)	296	(1)	(1)
Resin.....	2,327	1,929	83	2,616	2,424	93	2,355	(1)	(1)	132	(1)	(1)
Chlorate of potash.....	64	.....	.....	166	.....	.....	323	(1)	(1)	147	(1)	(1)
Bichromate of potash.....	222	222	100	6	5	84	.....	.....	.....	180	(1)	(1)
Acetate of calcium.....	214	213	99	966	966	100	1,216	(1)	(1)	.....	.....	.....
Morphine, hydrochlorate of, and salts of.....	3,478	977	28	7,118	5,520	77	12,305	(1)	(1)	1,787	(1)	(1)
Carbolic acid.....	3,106	2,810	90	4,337	2,381	54	3,634	(1)	(1)	544	(1)	(1)
Miscellaneous drugs, "other".....	10,293	5,090	49	12,789	6,998	55	19,198	(1)	(1)	4,180	(1)	(1)
Logwood extract.....	1,999	1,904	95	681	508	87	1,071	(1)	(1)	455	(1)	(1)
Raw cotton.....	515,559	265,106	40	667,867	286,112	43	721,437	339,164	47	219,249	100,103	46
Sheep's wool (tops and other).....	60,145	134	.....	61,303	49	.....	121,639	.....	.....	15,017	.....	.....
Pulp for paper making.....	6,835	2,333	34	10,067	3,859	36	13,190	2,407	18	3,591	299	8
Paper.....	10,922	8,898	81	21,392	17,183	80	17,408	8,770	50	4,710	1,971	42
Asbestos and manufactures thereof.....	2,004	1,107	55	2,298	1,245	55	4,172	(1)	(1)	418	(1)	(1)

Phosphoric acid	5,070	1,163	81	8,576	2,310	84	17,069	(1)	(1)	(1)	4,101	(1)
Glass, sheet and plate	1,429			2,760			3,760	(1)	(1)	(1)	2,336	(1)
Iron (bars, rods, angles, and the like)	84,221	76,383	91	47,721	41,989	88	60,535	(1)	(1)	(1)	22,206	(1)
Wire rods	8,794	8,013	91	9,990	8,231	82	9,010	(1)	(1)	(1)	1,834	(1)
Plate or sheet iron (not coated with metal)	78,409	77,149	98	68,481	56,947	83	88,747	(1)	(1)	(1)	33,397	(1)
Plate of sheet iron, galvanized	1,132	1,101	97	1,876	1,426	77	10,643	(1)	(1)	(1)	4,301	(1)
Plate and sheets thinned, ordinary	20,851	20,756	99	17,515	14,850	85	20,301	(1)	(1)	(1)	9,661	(1)
Wire, not coated with metals	1,906	1,810	95	1,180	1,045	89	537	(1)	(1)	(1)	537	(1)
Wire, galvanized	7,590	7,265	96	7,795	7,746	99	8,498	(1)	(1)	(1)	4,547	(1)
Pipes and tubes, elbows and joints, drawn, etc.	13,773	12,921	94	13,174	11,400	87	15,094	(1)	(1)	(1)	7,294	(1)
Aluminum	1,678	1,662	99	2,517	2,053	82	2,877	(1)	(1)	(1)	754	(1)
Lead ingots and slabs	14,746	5,375	36	10,896	3,219	30	7,115	(1)	(1)	(1)	941	(1)
Zinc ingots, slabs, and grains	1,366	931	99	8,446	7,742	92	7,045	(1)	(1)	(1)	2,494	(1)
Nickel ingots and grains	1,213	1,096	85	4,139	3,525	85	4,935	(1)	(1)	(1)	1,376	(1)
Nails, rivets, screws, etc.	8,652	8,257	95	9,106	8,792	97	9,732	(1)	(1)	(1)	3,504	(1)
Rails	14,941	14,583	97	21,866	21,750	99	19,400	(1)	(1)	(1)	6,933	(1)
Posts for electric lines and parts thereof	16	16	100	151	151	100	85	(1)	(1)	(1)	(1)	(1)
Materials for construction of buildings, bridges, vessels, docks, etc.	1,026	896	87	610	602	99	1,529	(1)	(1)	(1)	3,750	(1)
Insulated electric wire	84	81	96	216	148	69	1,715	(1)	(1)	(1)	1,118	(1)
Mechanics' tools, agricultural implements, etc., and parts	1,283	946	74	1,889	1,087	89	2,896	(1)	(1)	(1)	926	(1)
Iron manufactures (miscellaneous, other)	2,384	2,039	88	3,477	2,913	84	4,346	(1)	(1)	(1)	1,515	(1)
Railway carriages and parts thereof	3,097	3,087	99	6,782	6,765	99	7,117	(1)	(1)	(1)	3,233	(1)
Automobiles and parts	7,660	7,560	99	11,281	10,843	96	10,479	(1)	(1)	(1)	4,481	(1)
Locomotives and tenders	398	398	100	408	408	100	915	(1)	(1)	(1)	930	(1)
Dynamoes, electric motors, transformers, etc.	3,061	2,975	97	5,245	4,763	91	6,080	(1)	(1)	(1)	4,500	(1)
Gas compressors	1,029	997	97	1,080	1,037	96	1,849	(1)	(1)	(1)	745	(1)
Sewing machines	2,948	2,934	99	4,765	4,685	98	6,322	(1)	(1)	(1)	1,199	(1)
Metal or wood-working machinery	6,641	6,281	95	10,563	9,973	94	13,651	(1)	(1)	(1)	6,788	(1)
All other machinery ("miscellaneous")	18,096	12,747	70	32,910	23,004	72	42,701	(1)	(1)	(1)	31,238	(1)
Steam vessels	3,452	105	3	468	150	32	238	(1)	(1)	(1)	450	(1)
Iron and steel, raw or partly fabricated	73,116	7,001	10	72,541	9,272	13	56,447	(1)	(1)	(1)	14,509	(1)
Pine and fir wood	1,723	6,847	83	4,378	3,460	79	15,375	(1)	(1)	(1)	6,997	(1)
All other articles	592,710	79,508	19	859,590	126,475	15	835,751	(1)	(1)	(1)	308,138	(1)
Total	1,668,144	626,026	38	2,173,460	766,381	35	2,336,175	873,177	37		798,889	289,775

1 Unavailable.

* Includes all hides and skins. Total bull, ox, cow, and buffalo hides and skins, 1920, 16,122; 1921, 3,350.

• Total paraffin. Items not listed separately.

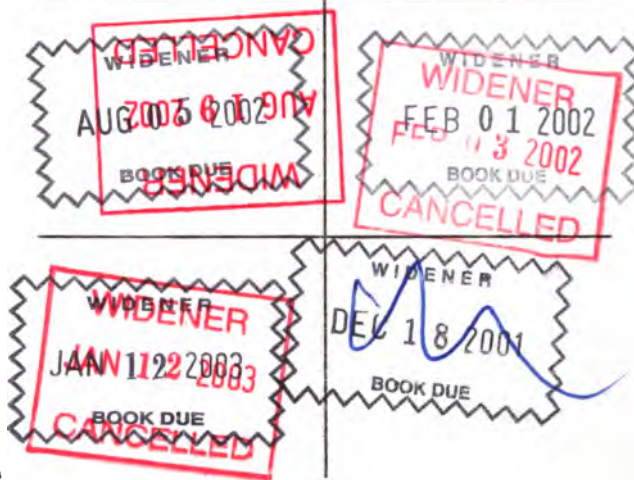
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